

# *TeleEye* *///*<sup>+</sup> VX Series

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## Video Recording Transmitter

VX-4001 / VX-4002  
VX-8002 / VX-8004  
VX-16004 / VX-16008

## Installation Guide



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Version 1.0

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# Table of Contents

## SECTION 1

### INTRODUCTION

- Features 2

## SECTION 2

### INSTALLATION OF *TeleEye III+ VX* FOR LOCAL MONITORING

- Removing the Package 3
- Front Panel Description 3
- Rear Panel Description 6
- Install *TeleEye III+ VX* for Local Video Display 9
- Install *TeleEye III+ VX* with Alarm Sensors and Relay Control Port 12
- Install *TeleEye III+ VX* with Telemetry Control 14

## SECTION 3

### MENU OPERATION

- Menu Structure 15
- Main Menu 16
- Display Setup Menu 18
- Alarm Setup Menu 18
- Switch Setup Menu 19
- Recording Setup Menu 19
- Transmitter Setup Menu 20
- Event Setup Menu 20
- Arm/Disarm Setup Menu 21
- Password Setup Menu 21

## SECTION 4

### INSTALL *TeleEye III+ VX* FOR REMOTE MONITORING

- Install *TeleEye III+ VX* for Remote Monitoring with Network 22
  - A. Setup *TeleEye III+ VX* for connection in LAN environment 22
  - B. Setup *TeleEye III+ VX* for connection in WAN environment with static IP 25
  - C. Setup *TeleEye III+ VX* for Broadband Internet connection with dynamic IP using Internet router 26
  - D. Setup *TeleEye III+ VX* for Broadband Internet connection with dynamic IP using Broadband dialer 28
- Install *TeleEye III+ VX* for Remote Monitoring with ISDN/PSTN Modem 31

## SECTION 5

### **HARD DISK INSTALLATION AND FORMATTING**

- Installation of Hard Disk 33
- Hard Disk Formatting 35
- Hard Disk Scanning 36
- Recommended Hard Disk List 37

## SECTION 6

### **USING BUILT-IN WEB SERVER**

- Enable the Built-In Web Server 38
- Connecting to the Web Server 39

## APPENDIX A

### **sureLINK TECHNOLOGY**

- How to Apply for **sureLINK** Address 41

## APPENDIX B

### **IP ADDRESS SETUP FOR PC**

- IP Address Setup for Window 98/ME 45
- IP Address Setup for Window NT/2000 48
- Router Configuration 49

## SECTION C

### **SPECIFICATIONS**

50

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**SECTION 1**

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# INTRODUCTION

The revolutionary **TeleEye III+ VX Series Video Recording Transmitter (TeleEye III+ VX)** is an all-in-one video recording transmitter with dual composite video outputs and removable hard disk for standalone and remote operations.

The **TeleEye III+ VX** supports triplex operation in which video monitoring, recording and playback can be carried out simultaneously. Recording frame rate up to 100/120 fps can be achieved. The highest recording resolution is 640x480 pixels. Recording operation can be activated by manual, scheduled and event-driven modes.

The powerful **TeleEye III+ VX** works on broadband Internet economically and gives you exceptionally well real time video transmission at speed up to 25/30 fps. Its “**sureLINK**” technology allows low cost dynamic IP broadband Internet connection.

Powered by its proprietary video compression technology and remote accessibility, **TeleEye III+ VX** provides simultaneous remote monitoring, recording and playback. Users can keep track of live video and play back recorded video from any remote locations.

**TeleEye III+ VX** is not only designed for connectivity but a total solution for video monitoring and digital recording!

## Features

- Video recording with rate up to 100/120 fps
- Standalone operations
- Dual composite video outputs
- OSD menus
- Flexible connections – Internet, LAN, PSTN, ISDN, ADSL cable modem, mobile network, etc.
- Built-in web server
- Support static and dynamic IP
- Real time video transmission
  - Up to 30fps over LAN for NTSC
  - Up to 25fps over LAN for PAL
  - Up to 20fps on PSTN
- Excellent picture resolution up to 640 x 480 pixels
- 4, 8, & 16 video & alarm inputs
- Web-based video monitoring
- Mobile video on Pocket PC
- Triplex Operation: Simultaneous video monitoring, recording & playback
- Video motion detection
- Event-driven recording
- Programmable video recording
- Auto alarm dial-back
- Pre- & post-alarm video recording
- Compatibility with popular telemetry systems
- Single- & multi-site monitoring
- Audio transmission with CAMERIO **Tele EAR**
- Video back-up function
- 4 relay switches

## SECTION

## 2

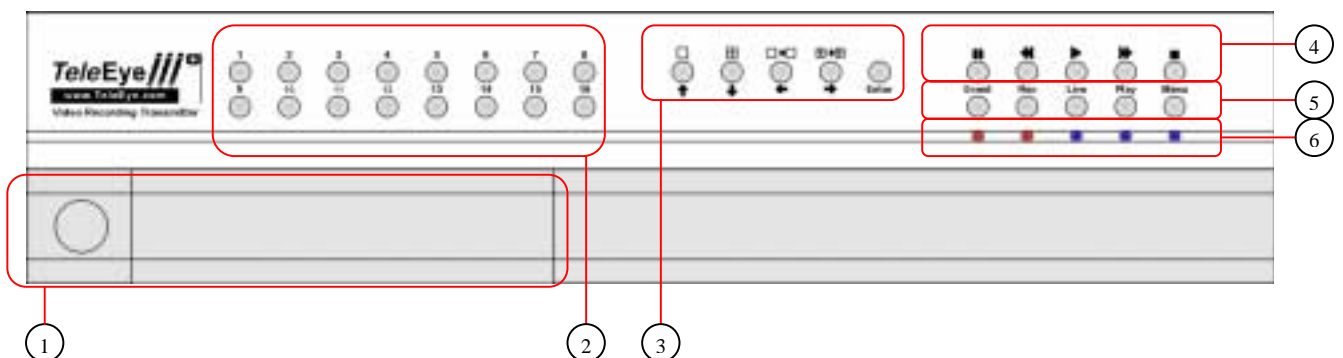
# INSTALLATION OF *TeleEye III+ VX* FOR LOCAL MONITORING

## Removing the Package

After removing the package, make sure you have the following items:

- **TeleEye III+ VX** transmitter
- Software CD
- Hard disk cartridge (with or without hard disk)
- Hard disk cartridge Key x 2
- AC to DC Power Adapter with cord
- Modem cable with 9-pin RS232 header
- 37-pin alarm header
- Warranty card
- Serial number and registration code card

## Front Panel Descriptions



### 1. Removable Hard Disk

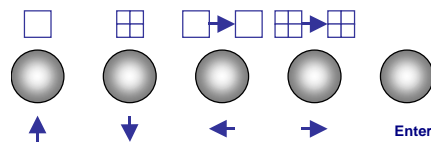
- All models built with a removable hard disk tray
- Key lock is provided to lock the hard disk from un-authorized removing
- Key is used to enable/disable the power supply to the system

## Installation of *TeleEye III+ VX* for Local Monitoring

## 2. Live camera control buttons

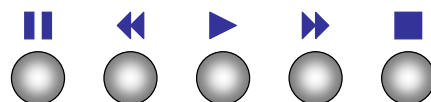
- **VX-4001 / VX-4002:** 1 – 4
- **VX-8002 / VX-8004:** 1 – 8
- **VX-16004 / VX-16008:** 1 – 16
- Camera control buttons allow user to fast switch to a specific camera for local monitoring
- The buttons are also used for password input

## 3. Screen mode control / Menu control buttons



- There are 2 modes for these buttons, either in live mode or menu control mode
- In live mode, the buttons are used to change video display mode in full screen, quad screen, full screen page mode and quad screen page mode
- In menu control mode, the buttons are used as “up”, “down”, “left”, “right” and “Enter” control

## 4. Local Playback control buttons

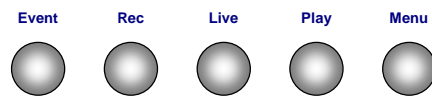


- These 5 buttons are used for recording playback control only
- The functions are pause, fast backward, play, fast forward, and stop

## Installation of **TeleEye III+ VX** for Local Monitoring



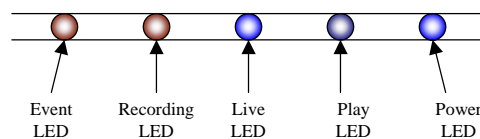
## 5. Mode control buttons



- These 5 buttons are used for switching between the control modes
- Event button: fast switch to event menu at any time
- Rec button: enable/disable normal recording at any time
- Live button: view live video at any time
- Play button: fast switch to playback log menu
- Menu button: switch to menu for system settings, recording settings and event settings etc.

## 6. Notification LEDs

There are 5 notification LEDs, 3 blue color and 2 red color from right to left



**Power LED:** this LED will be ON when hard disk rack key is locked and power switch is turned on. This LED will blink during system initiation, and remains ON after initiation.

**Play LED:** this LED will be ON when user press the **[Play]** button, it will turn OFF when the system is in live mode

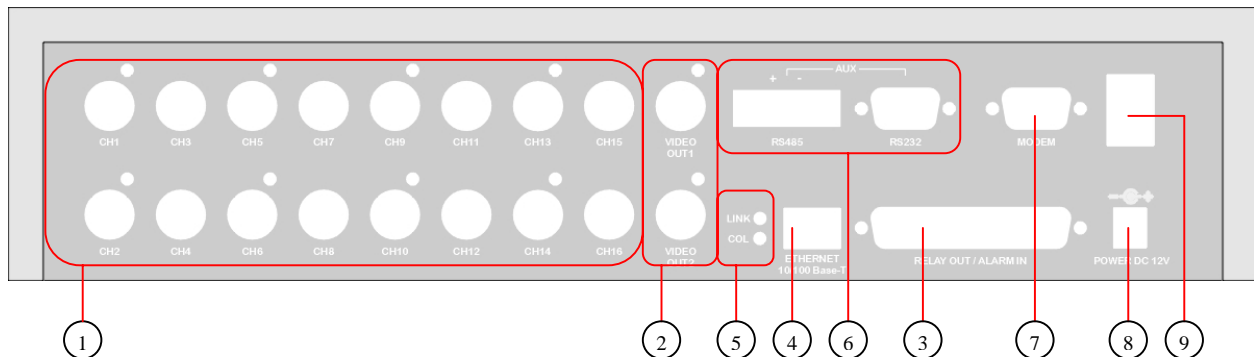
**Live LED:** this LED is ON indicating that video from the video out connectors are live videos. During recording video playback, this LED turns OFF

**Recording LED:** this LED will turn ON when **TeleEye III+ VX** is doing recording

**Event LED:** this LED will blink when event is triggered

## Installation of TeleEye III+ VX for Local Monitoring

## Rear Panel Descriptions



### 1. VIDEO INPUT Connectors

- **VX-4001 / VX-4002:** CH1 – CH4
- **VX-8002 / VX-8004:** CH1 – CH8
- **VX-16004 / VX-16008:** CH1 – CH16
- Standard BNC connectors for color and black and white video sources
- A composite video signal should be supplied to these connectors

### 2. VIDEO OUTPUT Connectors

- VIDEO OUT1 and VIDEO OUT2
- A composite video signal with 1V p-p is output from these connectors
- PAL/CCIR format with 625 lines, 50 fields per second
- NTSC/EIA format with 525 lines, 60 fields per second

### 3. RELAY OUT / ALARM IN Port

- 4 control switches are available for all models.
- **VX-4001 / VX-4002:** 4 alarm ports
- **VX-8002 / VX-8004:** 8 alarm ports
- **VX-16004 / VX-16008:** 16 alarm ports

## Installation of *TeleEye III+* VX for Local Monitoring

- All alarm ports are NC/NO type input
- Alarm port 1 can be configured as arm/disarm input

#### **4. Ethernet Socket (10/100 Base-T)**

- This socket is used for connecting **TeleEye III+ VX** to the corporate computer network (e.g. LAN)

#### **5. Collision & Link LED Status**

**COL LED:** when on, indicates that collision is occurring on the network.

**LINK LED:** when on, indicates that **TeleEye III+ VX** is connecting to the network and ready to function.

#### **6. AUX Port**

- A DB-9 female connector of DCE format, capable of connecting to DTE such as remote Pan/Tilt/Zoom operation
- Used for configuring the **TeleEye III+ VX** 's internal settings

Pin number	Definition	Direction
1	CD	Output
2	RXD	Output
3	TXD	Input
4	DTR	Input
5	GND	—
6	DSR	Output
7	RTS	Input
8	CTS	Output
9		N/A

### **Installation of *TeleEye III+ VX* for Local Monitoring**

## 7. MODEM Port

- A DB-9 male connector of DTE format, capable for connecting to DCE such as modem, ISDN terminal adaptor

Pin number	Definition	Direction
1	CD	Input
2	RXD	Input
3	TXD	Output
4	DTR	Output
5	GND	—
6	DSR	Input
7	RTS	Output
8	CTS	Input
9	N/A	

## 8. Power Jack

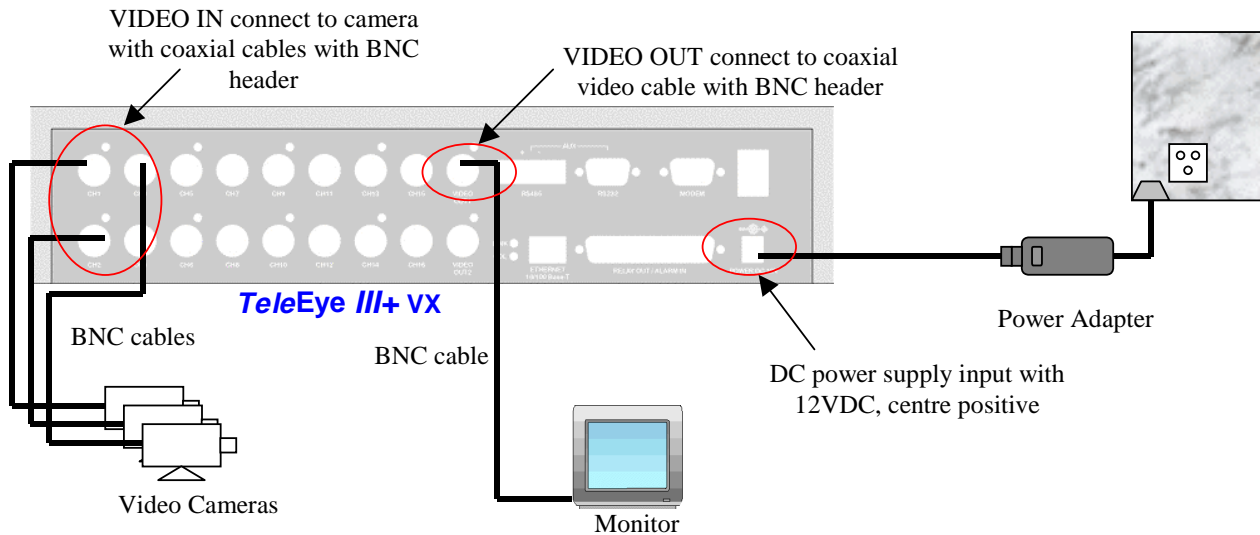
- A 2.1mm D.C. power jack for the connection to the power supply (12V D.C.) 

## 9. Switch

- A power switch to switch on or off the **TeleEye III+ VX** transmitter

## Installation of **TeleEye III+ VX** for Local Monitoring

## Install **TeleEye III+ VX** for Local Video Display



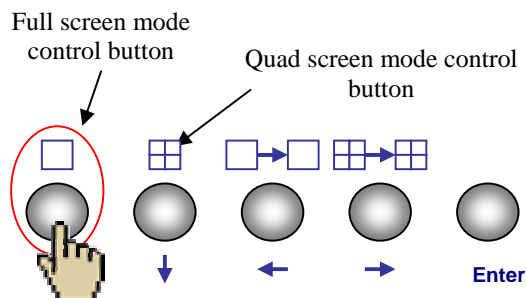
### Procedures:

1. Insert the hard disk cartridge into the hard disk tray of **TeleEye III+ VX**
2. Using the key provided to lock the hard disk cartridge
3. Connect video cameras to input video channels with BNC cable
4. Connect the VIDEO OUT1 to a monitor using BNC cable
5. Plug the DC supply to the power jack from the power adapter
6. Switch on the **TeleEye III+ VX** and you will see the live video on the monitor. For the first time you use **TeleEye III+ VX**, the live display mode is in quad mode, which means you will see four cameras on the screen at the same time

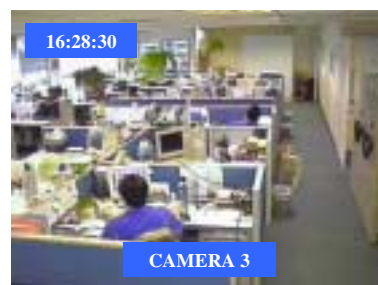
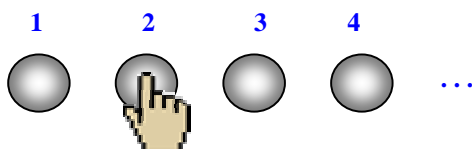
### Installation of **TeleEye III+ VX** for Local Monitoring



7. Press the **[full screen mode control]** button to switch to the full screen mode. You can press the **[quad screen mode control]** button again to switch back to quad mode

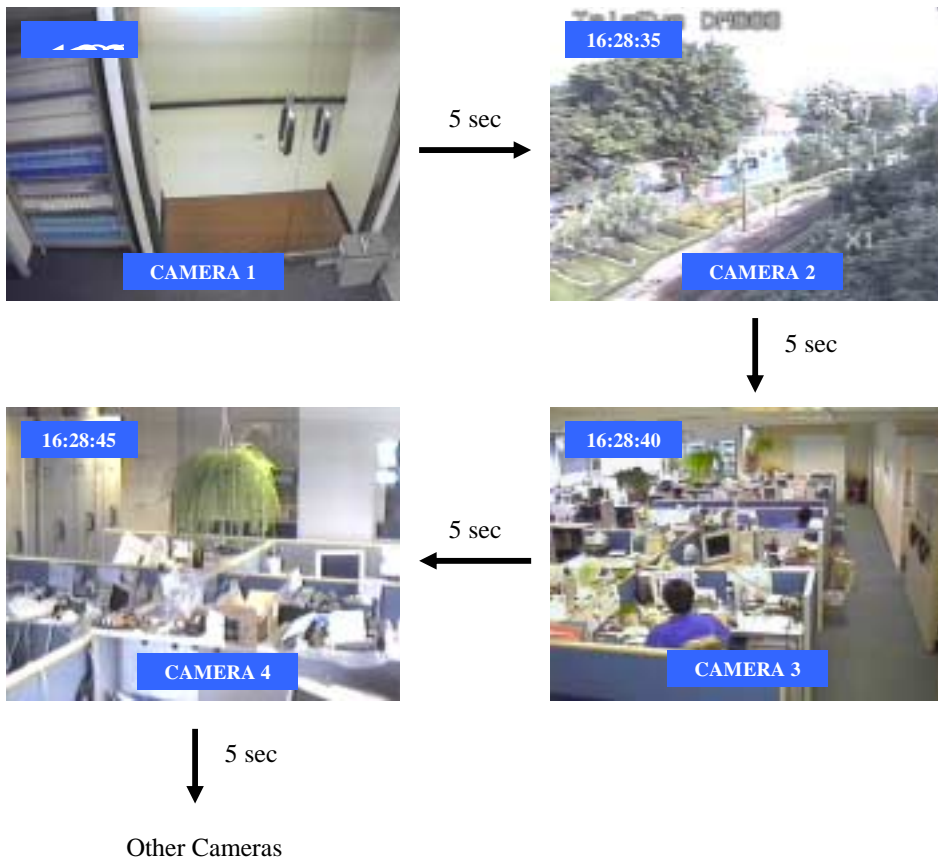
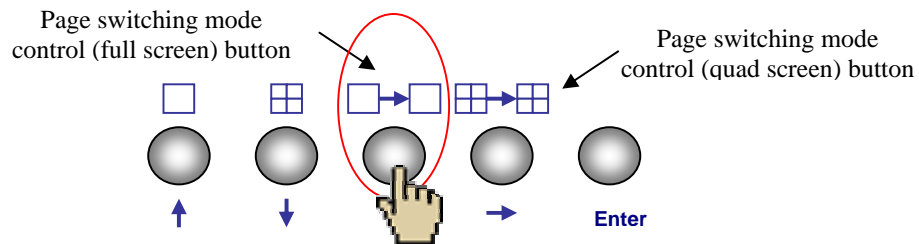


8. Press the **[live camera control]** button to switch to a different camera



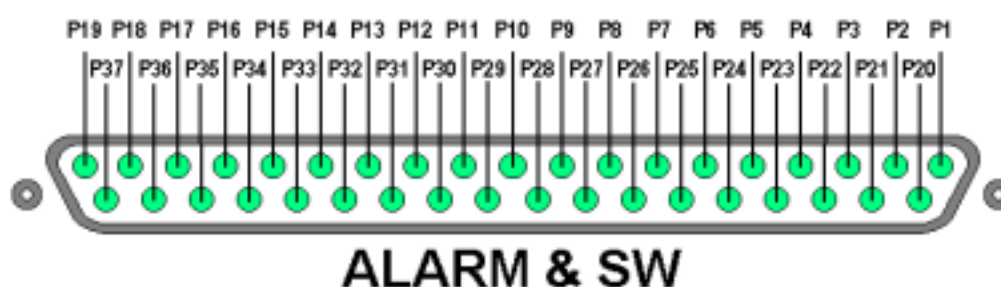
## Installation of TeleEye III+ VX for Local Monitoring

9. Press the **[page switching mode control]** button to view all cameras sequentially



## Install TeleEye III+ VX with Alarm Sensors and Relay Control Port

**TeleEye III+ VX** supports up to 16 alarm ports for connecting with alarm sensors, and 4 relay ports for remote/local controls. The definitions of alarm and relay control port are shown in the following diagram.



For **VX-4001/ VX-4002**:

Pin 1	ALARM 1	Pin 20	GND
Pin 2	ALARM 2	Pin 21	GND
Pin 3	ALARM 3	Pin 22	GND
Pin 4	ALARM 4	Pin 23	GND
Pin 5	N/C	Pin 24	GND
Pin 6	N/C	Pin 25	GND
Pin 7	N/C	Pin 26	GND
Pin 8	N/C	Pin 27	GND
Pin 9	N/C	Pin 28	GND
Pin 10	N/C	Pin 29	GND
Pin 11	N/C	Pin 30	GND
Pin 12	N/C	Pin 31	GND
Pin 13	N/C	Pin 32	N/C
Pin 14	N/C	Pin 33	N/C
Pin 15	RELAY 0a	Pin 34	RELAY 0b
Pin 16	RELAY 1a	Pin 35	RELAY 1b
Pin 17	RELAY 2a	Pin 36	RELAY 2b
Pin 18	RELAY 3a	Pin 37	RELAY 3b
Pin 19	N/C		

For **VX-8002 / VX-8004**:

Pin 1	ALARM 1	Pin 20	GND
Pin 2	ALARM 2	Pin 21	GND
Pin 3	ALARM 3	Pin 22	GND
Pin 4	ALARM 4	Pin 23	GND
Pin 5	ALARM 5	Pin 24	GND
Pin 6	ALARM 6	Pin 25	GND
Pin 7	ALARM 7	Pin 26	GND
Pin 8	ALARM 8	Pin 27	GND
Pin 9	N/C	Pin 28	GND

### Installation of TeleEye III+ VX for Local Monitoring



Pin 10	N/C	Pin 29	GND
Pin 11	N/C	Pin 30	GND
Pin 12	N/C	Pin 31	GND
Pin 13	N/C	Pin 32	N/C
Pin 14	N/C	Pin 33	N/C
Pin 15	RELAY 0a	Pin 34	RELAY 0b
Pin 16	RELAY 1a	Pin 35	RELAY 1b
Pin 17	RELAY 2a	Pin 36	RELAY 2b
Pin 18	RELAY 3a	Pin 37	RELAY 3b
Pin 19	N/C		

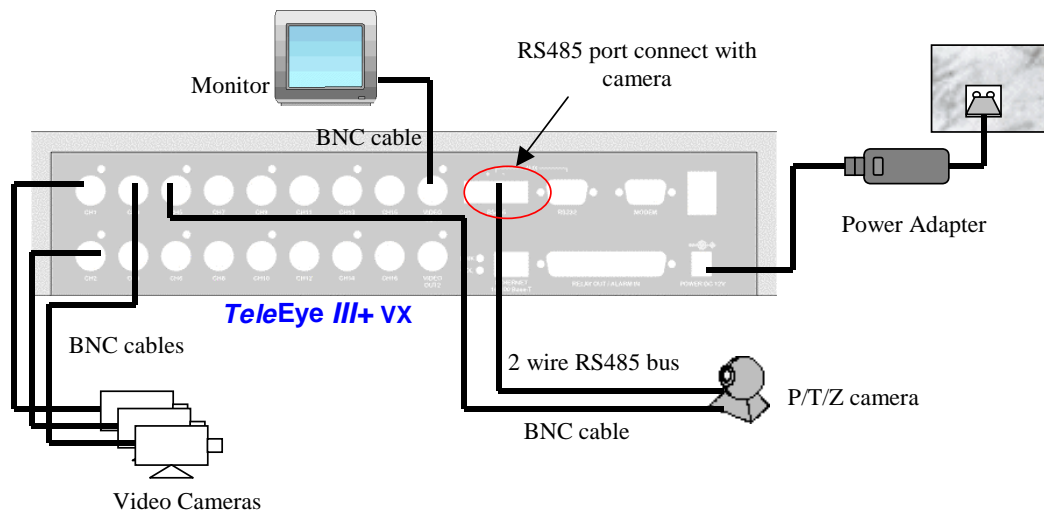
For **VX-16004 / VX-16008**:

Pin 1	ALARM 1	Pin 20	GND
Pin 2	ALARM 2	Pin 21	GND
Pin 3	ALARM 3	Pin 22	GND
Pin 4	ALARM 4	Pin 23	GND
Pin 5	ALARM 5	Pin 24	GND
Pin 6	ALARM 6	Pin 25	GND
Pin 7	ALARM 7	Pin 26	GND
Pin 8	ALARM 8	Pin 27	GND
Pin 9	ALARM 9	Pin 28	GND
Pin 10	ALARM 10	Pin 29	GND
Pin 11	ALARM 11	Pin 30	GND
Pin 12	ALARM 12	Pin 31	GND
Pin 13	ALARM 13	Pin 32	ALARM 14
Pin 14	ALARM 15	Pin 33	ALARM 16
Pin 15	RELAY 0a	Pin 34	RELAY 0b
Pin 16	RELAY 1a	Pin 35	RELAY 1b
Pin 17	RELAY 2a	Pin 36	RELAY 2b
Pin 18	RELAY 3a	Pin 37	RELAY 3b
Pin 19	N/C		

**Installation of TeleEye III+ VX for Local Monitoring**

## Install *TeleEye III+ VX* with Telemetry Control

As *TeleEye III+ VX* built with a RS485 port, you can connect this port to Pan/Tilt/Zoom cameras. The connection diagram is shown below.



**Note:** RS485 and RS232 AUX port are shared port in *TeleEye III+ VX*. Only connect to one port at a time. Connecting both ports at the same time will cause both ports malfunction.

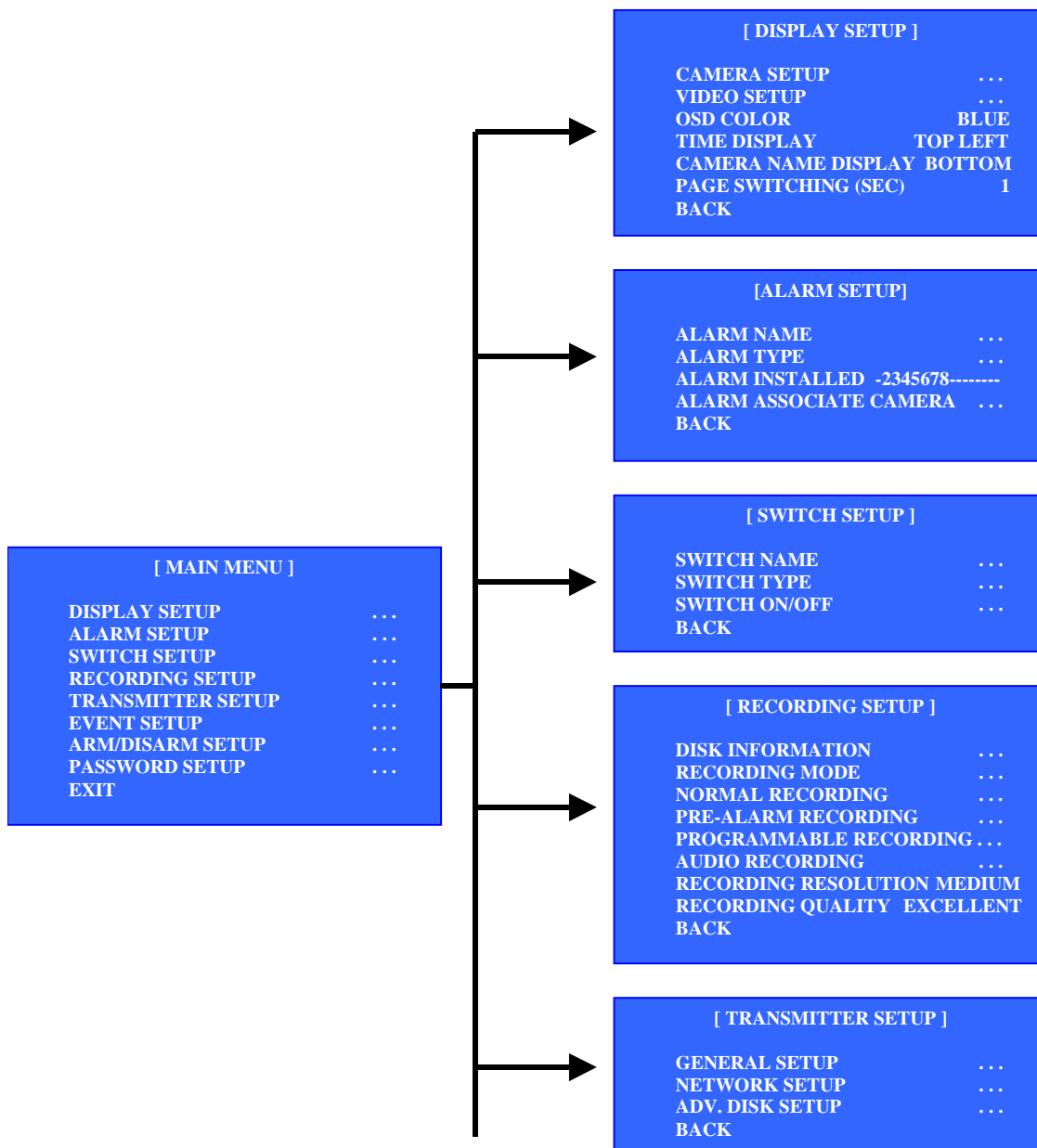
### Installation of *TeleEye III+ VX* for Local Monitoring

## SECTION 3

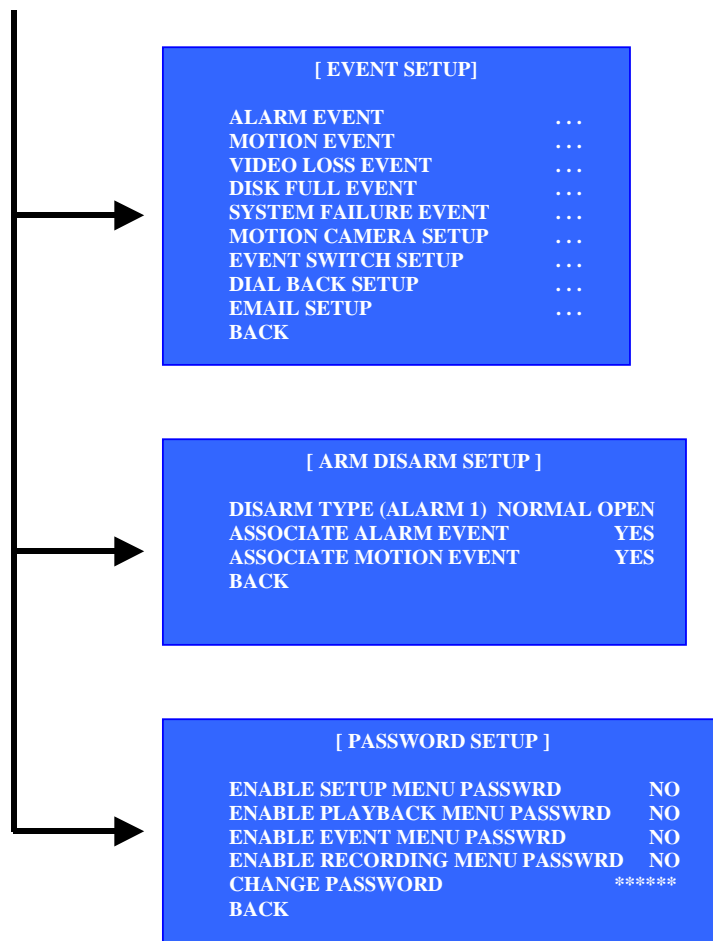
# MENU OPERATION

## Menu Structure

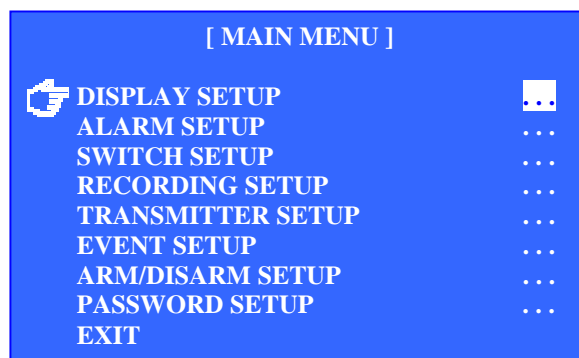
The system setup and operation of **TeleEye III+ VX** is controlled through menus. The overall menu tree is shown in the following diagram. The function of each menu will be explained later in this section.



## Menu Operation

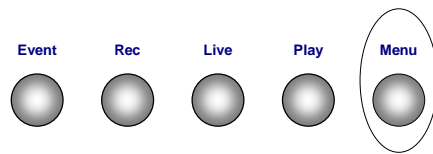


## Main Menu

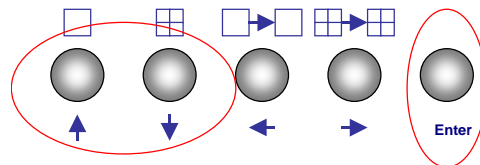


## Menu Operation

1. Press the **[Menu]** button to pop up the main menu



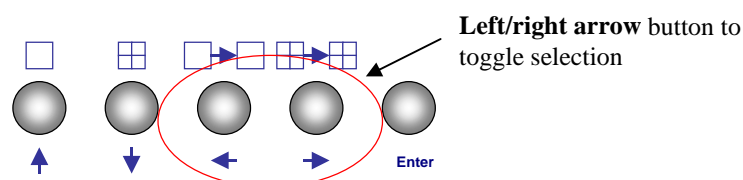
2. Using the **[up/down arrow]** button to select a sub-menu



3. A selected sub-menu item will be pointed by a hand cursor and highlighted
4. Press **[Enter]** button to confirm the selection and pop up the sub-menu
5. The main menu contains the following items

<b>DISPLAY SETUP</b>	: Change camera, live video and OSD related settings
<b>ALARM SETUP</b>	: Change alarm related settings
<b>SWITCH SETUP</b>	: Change relay switch related settings
<b>RECORDING SETUP</b>	: Change recording related settings
<b>TRANSMITTER SETUP</b>	: Change the transmitter general and network settings
<b>EVENT SETUP</b>	: Change event, and event related settings
<b>PASSWORD SETUP</b>	: Change system password settings
<b>EXIT</b>	: Exit the main menu

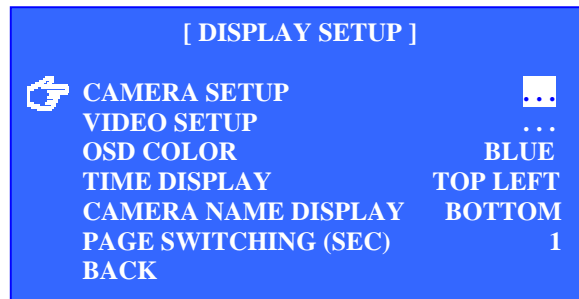
6. Menu item ended with **[. . .]** indicates sub-menu exist. You can always press the **[Enter]** button to pop up the sub-menu
7. If menu item not ended with **[. . .]** but provides selection, you can always press the **[left/right arrow]** button to toggle the selections



8. In menu operation mode, the **[Menu]** button act as a “Back” button, you can press the **[Menu]** button back to previous menu

## Menu Operation

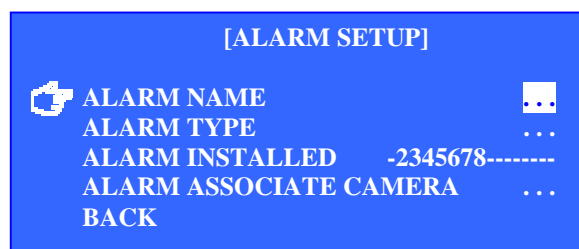
## Display Setup Menu



The display setup menu contains the following items

<b>CAMERA SETUP</b>	: Change camera name, camera install
<b>VIDEO SETUP</b>	: Change video brightness, contrast and color format
<b>OSD COLOR</b>	: Change OSD color
<b>TIME DISPLAY</b>	: Change the position of time display on OSD
<b>CAMERA NAME DISPLAY</b>	: Change the position of camera name display on OSD
<b>PAGE SWITCHING (SEC)</b>	: Change the page switching time
<b>BACK</b>	: Back to previous menu

## Alarm Setup Menu

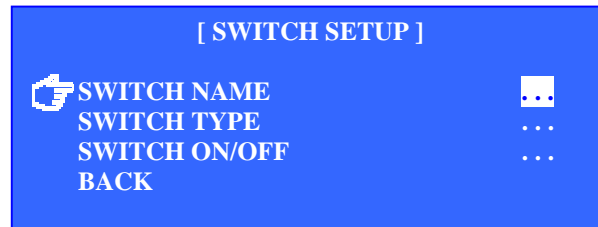


The alarm setup menu contains the following items

<b>ALARM NAME</b>	: Change alarm port name
<b>ALARM TYPE</b>	: Change alarm type, normal close or normal open
<b>ALARM INSTALLED</b>	: Change installed alarms
<b>ALARM ASSOCIATE CAMERA</b>	: Change alarm associate camera for alarm recording
<b>BACK</b>	: Back to previous menu

## Menu Operation

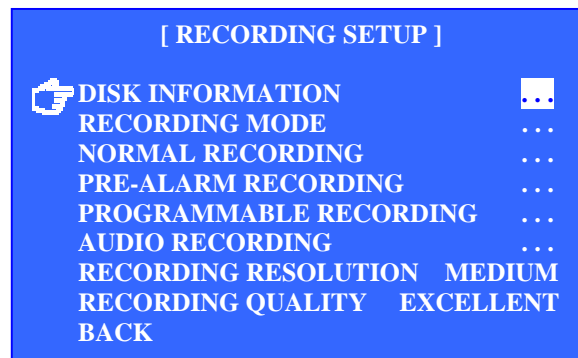
## Switch Setup Menu



The switch setup menu contains the following items

<b>SWITCH NAME</b>	: Change relay switch name
<b>SWITCH TYPE</b>	: Change relay switch type
<b>SWITCH ON/OFF</b>	: Manually control the switch to ON/OFF state
<b>BACK</b>	: Back to previous menu

## Recording Setup Menu

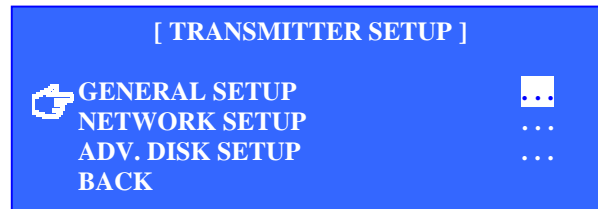


The recording setup menu contains the following items

<b>DISK INFORMATION</b>	: Report the hard disk information
<b>RECORDING MODE</b>	: Select the fix or cyclic recording mode
<b>NORMAL RECORDING</b>	: Change normal recording enabled cameras
<b>PRE-ALARM RECORDING</b>	: Change settings of programmable recording
<b>PROGRAMMABLE RECORDING</b>	: Enable/Disable pre-alarm recording
<b>AUDIO RECORDING</b>	: Change settings of audio recording
<b>RECORDING RESOLUTION</b>	: Change recording resolution (use left/right arrow button)
<b>RECORDING QUALITY</b>	: Change recording quality (use left/right arrow button)
<b>BACK</b>	: Back to previous menu

## Menu Operation

## Transmitter Setup Menu



The transmitter setup menu contains the following items

<b>GENERAL SETUP</b>	: Change general settings such as date/time, modem port
<b>NETWORK SETUP</b>	: Change network type setting such as IP address, port
<b>ADV. DISK SETUP</b>	: Hard disk scanning and formatting tools
<b>BACK</b>	: Back to previous menu

## Event Setup Menu



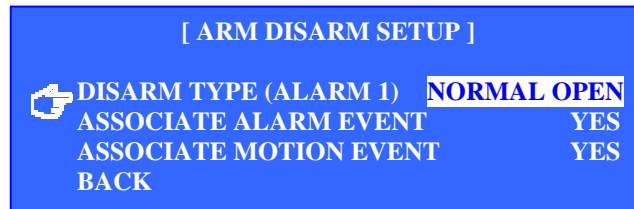
The event setup menu contains the following items

<b>ALARM EVENT</b>	: Change alarm event associated actions
<b>MOTION EVENT</b>	: Change motion event associated actions
<b>VIDEO LOSS EVENT</b>	: Change video loss event associated actions
<b>DISK FULL EVENT</b>	: Change disk full event associated actions
<b>SYSTEM FAILURE EVENT</b>	: Change system failure event associated actions
<b>MOTION CAMERA SETUP</b>	: Enable/Disable motion detection for a particular camera
<b>EVENT SWITCH SETUP</b>	: Change relay switch type for event triggered actions
<b>DIAL BACK SETUP</b>	: Change dial back action settings
<b>EMAIL SETUP</b>	: Change Email action settings
<b>BACK</b>	: Back to previous menu

## Menu Operation



## Arm/Disarm Setup Menu

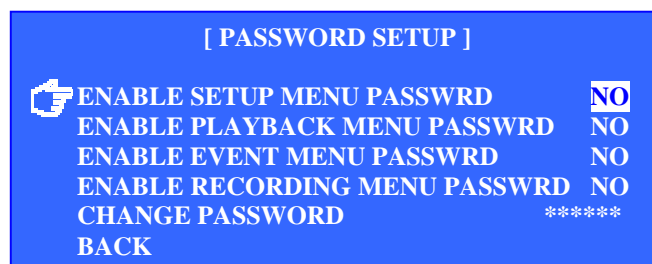


The arm/disarm setup menu contains the following items

<b>DISARM TYPE (ALARM 1)</b>	: Change arm/disarm type
<b>ASSOCIATE ALARM EVENT</b>	: Change arm/disarm associated with alarm event
<b>ASSOCIATE MOTION EVENT</b>	: Change arm/disarm associated with motion event
<b>BACK</b>	: Back to previous menu

**Note:** ARM/DISARM is controlled by alarm 1

## Password Setup Menu



The password setup menu contains the following items

<b>ENABLE SETUP MENU PASSWORD</b>	: Enable or disable setup menu password
<b>ENABLE PLAYBACK MENU PASSWORD</b>	: Enable or disable playback menu password
<b>ENABLE EVENT MENU PASSWORD</b>	: Enable or disable event menu password
<b>ENABLE RECORDING MENU PASSWORD</b>	: Enable or disable recording menu password
<b>CHANGE PASSWORD</b>	: Change to a new password
<b>BACK</b>	: Back to previous menu

## Menu Operation

## SECTION 4

# INSTALLATION OF *TeleEye III+ VX* FOR REMOTE MONITORING

## Install *TeleEye III+ VX* for Remote Monitoring with Network

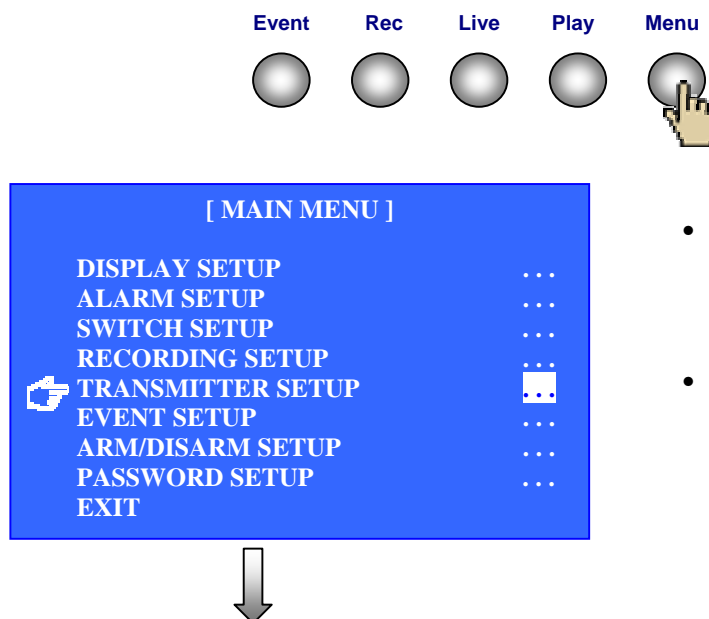
### A. Setup *TeleEye III+ VX* for connection in LAN environment

Before setting up the transmitter on LAN, you need to prepare the following items:

- A straight through RJ45 Ethernet cable
- An IP address which is unique in your LAN network. Consult your network administrator if you don't have

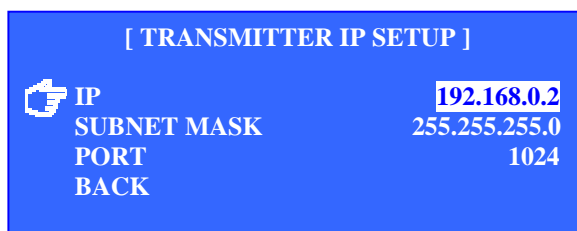
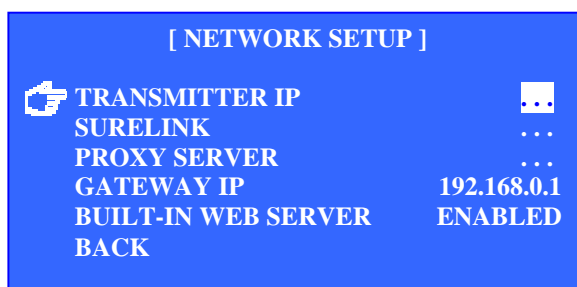
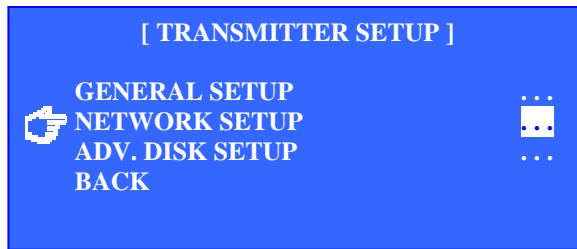
#### Procedures:

1. Follow the steps of setting up *TeleEye III+ VX* for local video display, now you can see the live video and OSD on the monitor
2. Press the [Menu] button on front panel of *TeleEye III+ VX* such that the OSD main menu will popup on the monitor as follows



- Use the arrow button to move down to select the [TRANSMITTER SETUP] menu. The selected item will be pointed by a hand icon.
- Press the [Enter] button to enter the selected sub-menu

## Installation of *TeleEye III+ VX* for Remote Monitoring



- In the **[TRANSMITTER SETUP]** menu, move the cursor to **[NETWORK SETUP]**
- Press the **[Enter]** button to enter the selected sub-menu
- If you have selected the wrong sub-menu, you can select the **[BACK]** item to go back to the previous menu
- Later on you can go back to this menu to enable the built-in web server so that you can use a web browser (eg. IE) to test the connection



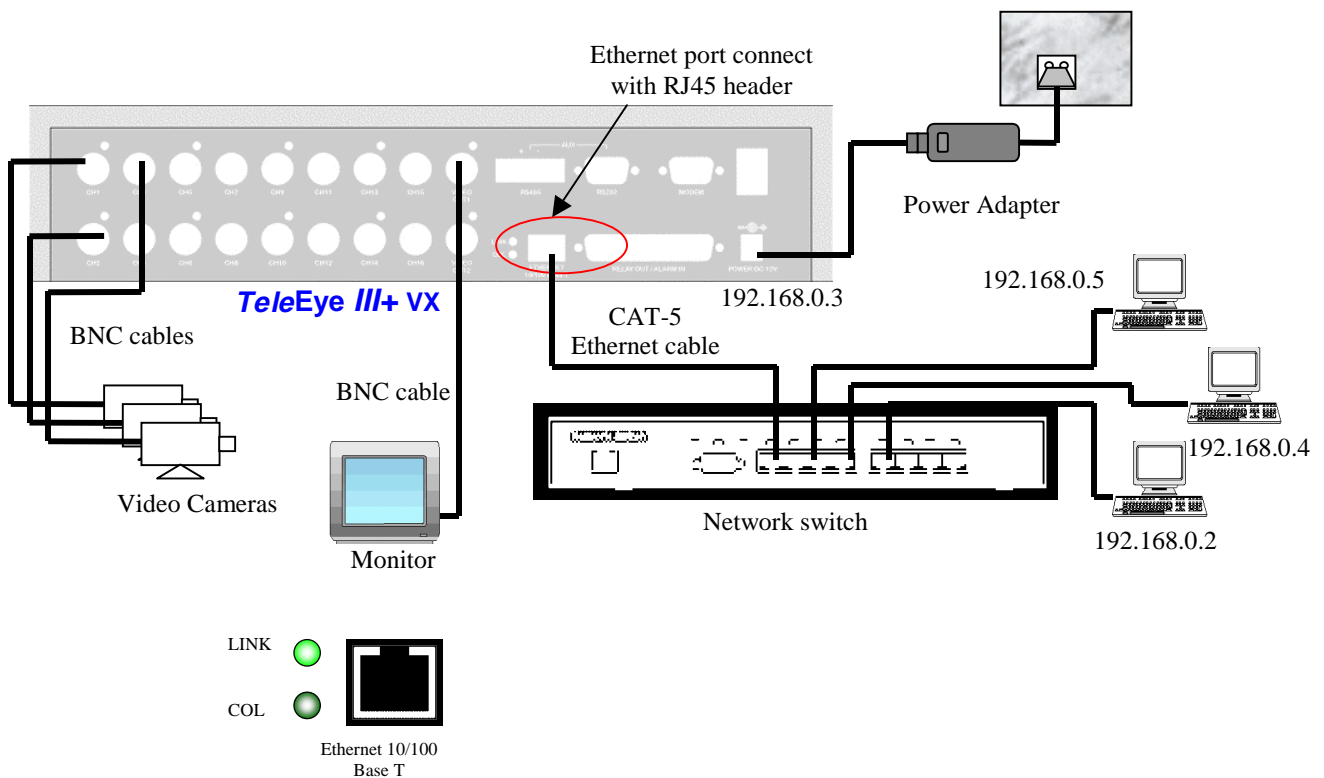
Menu items ended with [...] indicate sub-menu exist

- Use Cursor button to move the cursor to select **0-9**, **[BACK]**, **[NEXT]**, etc.
- Use the **[Enter]** button to confirm selection
- After entering the IP address, select **[END]** and press **[Enter]** button to go back to previous menu for subnet mask and port number setting

3. After setting up the IP address, you need to setup the subnet mask and port number in the similar way

## Installation of TeleEye III+ VX for Remote Monitoring

4. After changing any network settings, you should back to the [MAIN MENU] and [EXIT] the main menu to save all the settings. Or you can press the [Live] button to fast exit the menu operation
5. Now connect the **TeleEye III+ VX** to your LAN using Ethernet cable as shown in the following diagram



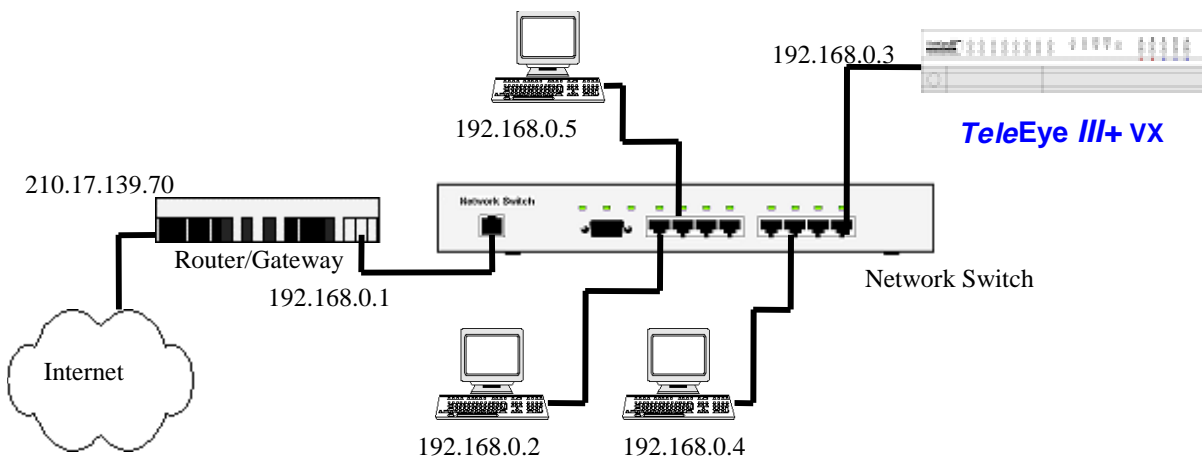
6. Power on the **TeleEye III+ VX**. You will notice the **LINK LED** is on and **COL LED** is off which indicate you have connected to your LAN network properly.
7. If you have enabled the built-in web server of **TeleEye III+ VX**, you can connect to **TeleEye III+ VX** using a web browser (eg. IE) on a PC inside the network. Type the address as (eg. <http://192.168.0.3> ), you are prompt to enter the password (default is "000000"). Please see section 5 for detail on built-in web server access.
8. If all the settings are correct, you can view the video through the browser.

## Installation of **TeleEye III+ VX** for Remote Monitoring

## B. Setup **TeleEye III+ VX** for connection in WAN environment with static IP

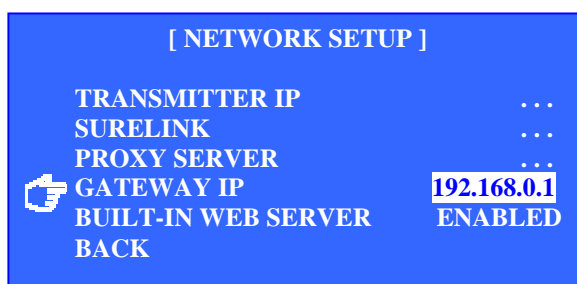
### Connection topology:

The connection topology of **TeleEye III+ VX** in WAN environment is similar in the case of LAN. An additional equipment called Router/Gateway is needed for connecting the LAN with WAN. Therefore, we need to setup the gateway IP for **TeleEye III+ VX**.



### Procedures:

- Follow the steps of setting up **TeleEye III+ VX** for local video display so that you can configure everything with OSD. Press the button [Menu], and then by entering the menu [MAIN MENU] and [TRANSMITTER SETUP], you can see the following menu.



- Use Cursor button to select the [GATEWAY IP] item
- Use the [Enter] button to enter the [GATEWAY IP] sub-menu to change the gateway IP
- Exit all menus to save the settings

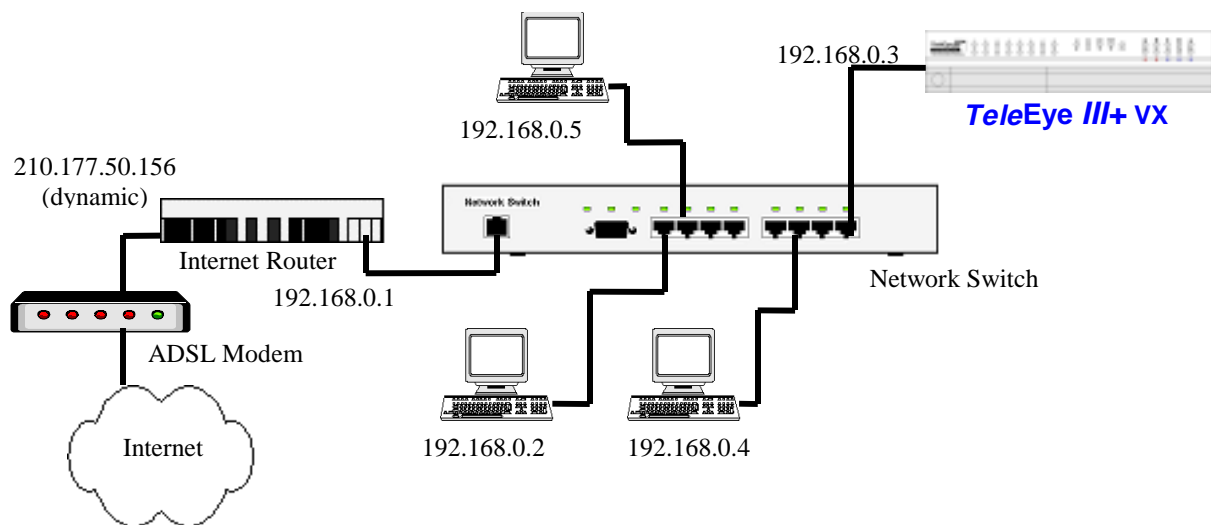
- Power on the **TeleEye III+ VX**. The **LINK LED** is on and **COL LED** is off, which indicate that you have connected to your LAN properly.

## Installation of **TeleEye III+ VX** for Remote Monitoring

### C. Setup **TeleEye III+ VX** for Broadband Internet connection with dynamic IP using Internet router

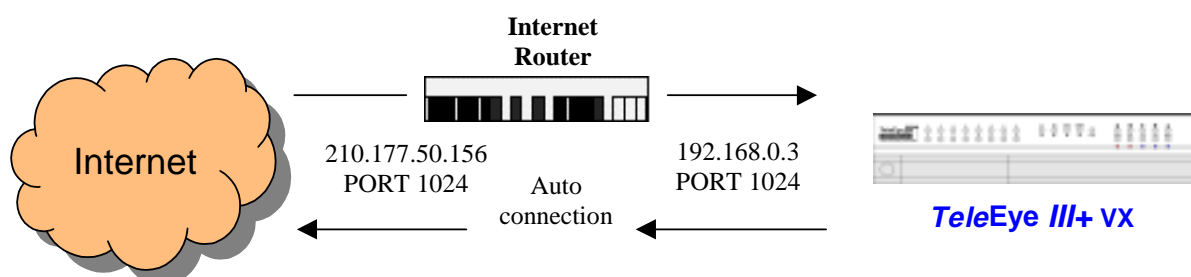
#### Connection topology:

Nowadays, Broadband Internet access is established by using ADSL modem or Cable modem. For ADSL modem, an Internet Router is used to be setup with the broadband access account name and password. To enable a remote viewer to connect to **TeleEye III+ VX** through the Internet, we need to setup port mapping for the Internet Router.



#### Procedures:

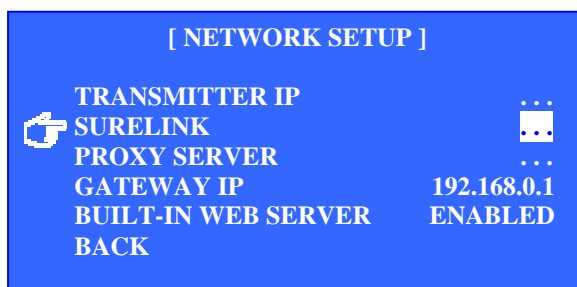
1. Install ADSL modem and Internet Router as shown in the connection topology diagram. Setup the Port mapping for Internet Router so that other PCs on the Internet can “see” **TeleEye III+ VX** using that specific port. A typical port mapping setting is illustrated in the following diagram.



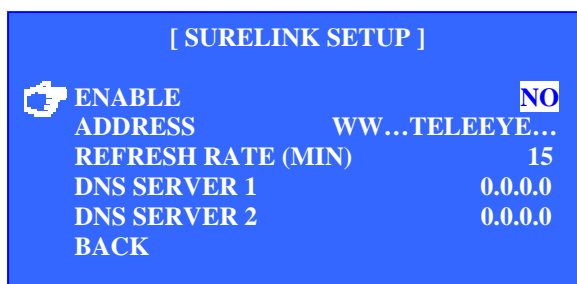
### Installation of **TeleEye III+ VX** for Remote Monitoring

External port	1024
Internal IP	192.168.0.2
Internal port	1024

- The IP address assigned by the ISP to you through ADSL modem is dynamic, which means it will change after certain period of time. In order to make the **TeleEye III+ VX** addressable, you need to apply for our proprietary **sureLINK** service. Procedures involved are listed in appendix A.
- After successful application of **sureLINK** service, you will obtain a **sureLINK** address, for example “www.your\_site.your\_company.teleeye.net”.
- Follow the steps below to set the **sureLINK** address and DNS name into **TeleEye III+ VX**.



- Press [Menu] button to enter the [MAIN MENU], and then select [TRANSMITTER SETUP] -> [NETWORK SETUP]
- Use the arrow button to select [SURELINK] item, press [Enter] to popup the [SURELINK SETUP] menu



- Select the [ENABLE] item, then use the left and right arrow button to select YES
- Enter the [ADDRESS], [DNS SERVER1], [DNS SERVER2] item, and change them to the correct value
- Exit all menus to save the settings

- DNS address enables your **TeleEye III+ VX** using the **sureLINK** address to update its IP address to TeleEye’s **sureLINK** server, the refresh rate indicates the time duration for updating. Duration of 15-45 minutes is frequent enough.
- After finish all configurations, power resets the **TeleEye III+ VX** to make the new values effective.

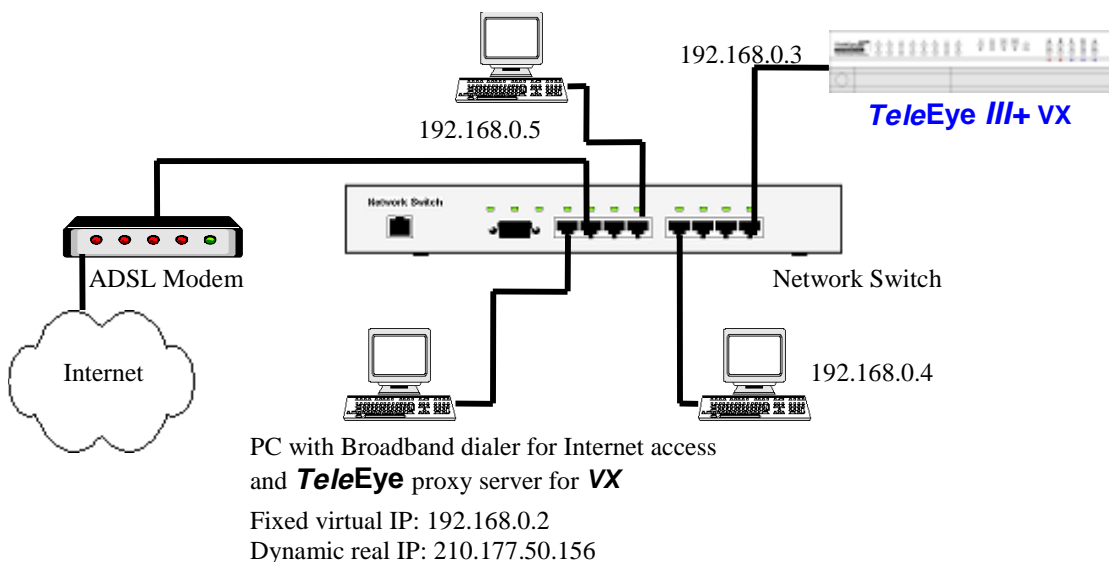
## Installation of **TeleEye III+ VX** for Remote Monitoring

7. Try to use a web browser (eg. IE) to connect to **TeleEye III+ VX** by entering its **sureLINK** address, you can see the video on browser if all your settings are correct. (Note: you must enable the built-in web server of **TeleEye III+ VX** before doing the testing)

#### D. Setup **TeleEye III+ VX** for Broadband Internet connection with dynamic IP using Broadband dialer

##### Connection topology:

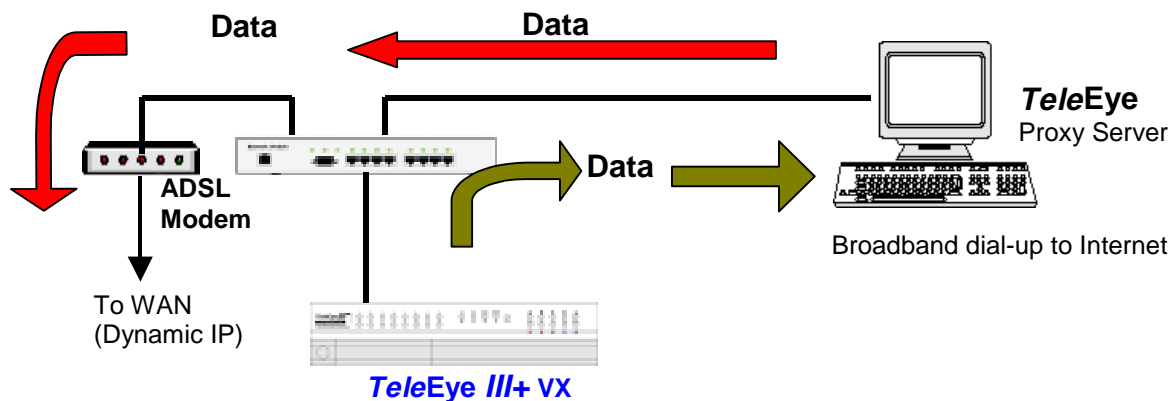
It is possible to share the Broadband Internet access without an Internet router. Instead, a dedicated PC is required to control the ADSL modem to connect to the Internet. This dedicated PC will obtain a “real” but dynamic IP from the ISP, a proxy server is thus required to act as a gateway between **TeleEye III+ VX** and the Internet.



The video data flow between **TeleEye III+ VX** to the Internet through the proxy server is illustrated in the following diagram.

#### Installation of **TeleEye III+ VX** for Remote Monitoring





### Transmitter installation procedures:

1. Install ADSL modem as shown in the connection topology diagram. Connect **TeleEye III+ VX** to network switch, and following the steps in setting up **TeleEye III+ VX** for Broadband Internet connection with dynamic IP using Internet router. Notice that the gateway of **TeleEye III+ VX** should remain blank in this case.
2. Press [**Enter**] button to pop up the main menu, and enter the sub-menu [**TRANSMITTER SETUP**] -> [**NETWORK SETUP**].

```

[ NETWORK SETUP ]

TRANSMITTER IP      ...
SURELINK             ...
[ ] PROXY SERVER     [ ]
GATEWAY IP           192.168.0.1
BUILT-IN WEB SERVER  ENABLED
BACK
  
```

3. Select [**PROXY SERVER**] item and then press enter to edit the proxy sever IP address.

```

[ PROXY SERVER SETUP ]

[ ] ENABLE           NO
IP                   0.0.0.0
PORT                 0
BACK
  
```

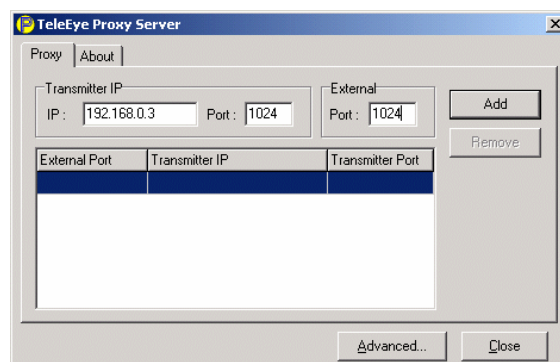
4. You need to set edit each items of the [**PROXY SERVER SETUP**] menu. Select [**ENABLE**] item and user left/right arrow button to toggle select [**YES**], enter the IP address (eg. 192.168.0.2 as in the connection topology), and set the port number (default value is 19001).

### Installation of **TeleEye III+ VX** for Remote Monitoring

5. Setup **sureLINK** address and related settings as previous discussed.
6. Reset **TeleEye III+ VX** so that all settings will take effect.

#### PC software installation procedures:

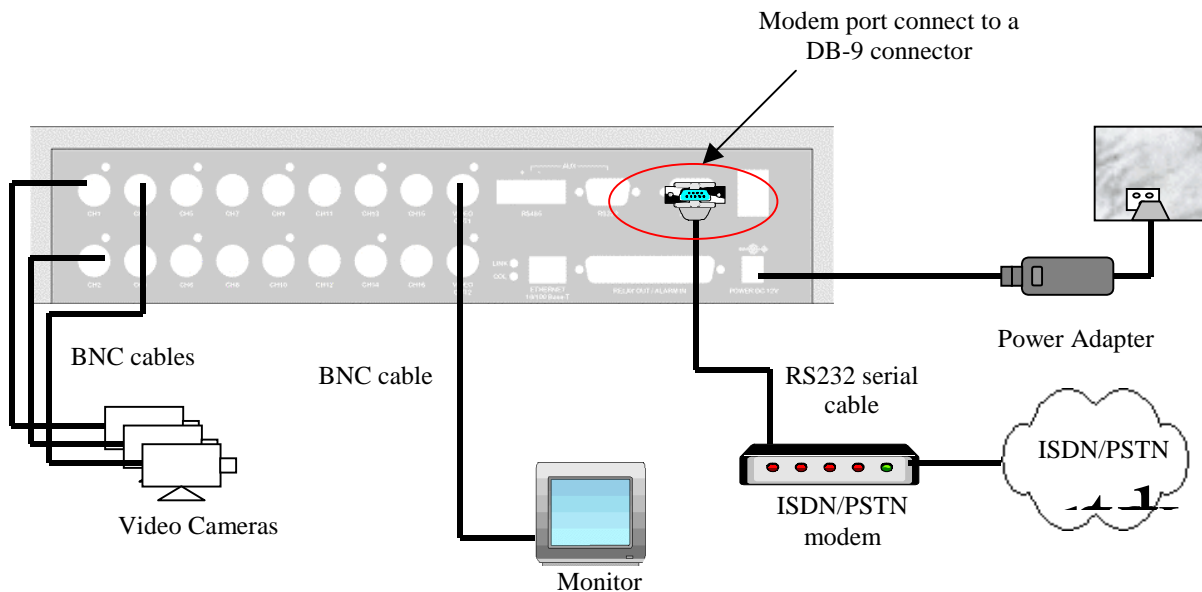
1. On PC side, you need to install the Broadband dialer software and **TeleEye** proxy server software.
2. For Broadband dialer, consult your Broadband dialer software installation manual.
3. Install **TeleEye** proxy server software, which is bundled with **TeleEye III+ WRS3-AD** software.
4. Start **TeleEye** proxy server, the following screen will pop up. Enter the transmitter IP (eg. 192.168.0.3) and port number (eg. 1024). The external port is the port number of the dynamic real IP, which is used for other PCs on the Internet to access the transmitter.



5. Click the [Add] button, so that the configurations will take effect and saved.
6. Try to connect to the **TeleEye III+ VX** on the Internet with web browser using its **sureLINK** address.

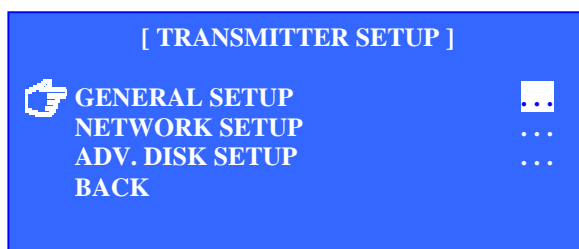
#### Installation of **TeleEye III+ VX** for Remote Monitoring

## Install *TeleEye III+ VX* for Remote Monitoring with ISDN/PSTN Modem



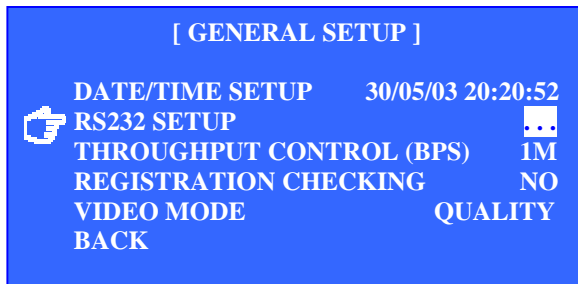
### Procedures:

1. Follow the steps of setting up *TeleEye III+ VX* for local video display, so that you can configure the modem port locally with keypad and monitor
2. Press the **[Menu]** button, and then **[TRANSMITTER SETUP]**, you will enter the following menu



3. Select the **[GENERAL SETUP]** item, the general setup menu will popup below, select **[RS232 SETUP]** item, and press **[Enter]** button to enter the sub-menu.

### Installation of *TeleEye III+ VX* for Remote Monitoring



- Use **[Enter]** button to enter the selected sub-menu



Modem port bit rate is the maximum bit rate between **TeleEye III+ VX** and the modem, the actual transmission bit rate may depends on the bit rate between the modems after training

4. Connect an ISDN/PSTN modem to **TeleEye III+ VX** using RS232 serial cable. Power on both **TeleEye III+ VX** and modem, using the **TeleEye WRS3-AD** software to make a modem connection to **TeleEye III+ VX** transmitter. If all the configurations are correct, you will see video on the **WRS3-AD** software. (For using of **WRS3-AD** software, please refer to **TeleEye WRS3-AD** user manual)

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**SECTION 5**

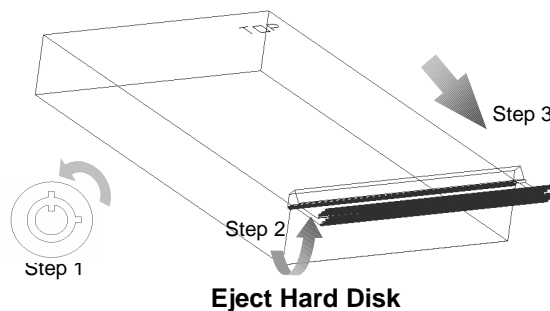
## HARD DISK INSTALLATION AND FORMATTING

### Installation of Hard Disk

If you want to change the hard disk of **TeleEye III+ VX**, you need to do the hard disk installation procedure. **TeleEye III+ VX** support ATA standard hard disk, it is highly recommended that you use the hard disk listed at the end of this section.

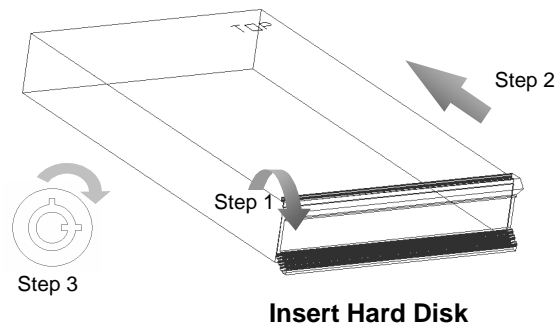
#### Procedures:

1. Remove the hard disk rack as illustrated in the following diagram



2. Open the cover of the hard disk cartridge provided by **TeleEye**, you will see a power cable and a 80-pin IDE cable
3. Plug the power cable and the 80-pin IDE cable to the hard disk, and insert the hard disk into the rack
4. Fix the position of hard disk on the rack by fasten the screws
5. Cover the hard disk rack, and insert the hard disk into **TeleEye III+ VX**
6. Lock the Key Lock. Configure the **TeleEye III+ VX** with local display as described in previous sections, and then switch the power on

### Hard Disk Installation and Formatting



7. Press the **[Menu]** button to pop up the **[MAIN MENU]** on the screen. Select **[TRANSMITTER SETUP]** and press **[Enter]** button, the following menu will be shown



8. Select **[ADV. DISK SETUP]** using the up/down arrow button and the press **[Enter]** button to enter the sub-menu as follows



9. Select **[DISK INFORMATION]** item, and press **[Enter]** button, you will get the hard disk information as follows



10. If you installed the hard disk properly, the item **[DISK CAPACITY]** should match with the capacity specification of the hard disk roughly

## Hard Disk Installation and Formatting

## Hard Disk Formatting

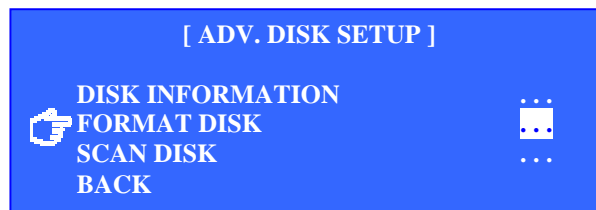
Hard disk formatting will reconstruct the structure of hard disk so that it is readable by **TeleEye III+ VX**. If you have your own hard disk to install to **TeleEye III+ VX**, you must perform hard disk formatting.

**It will be used in the following cases:**

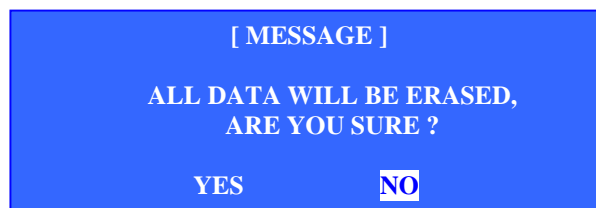
1. A new hard disk you just brought
2. No recorded video can be played
3. You want to format the hard disk so as to have a clean recording space, redeem the file allocation.

**Procedures:**

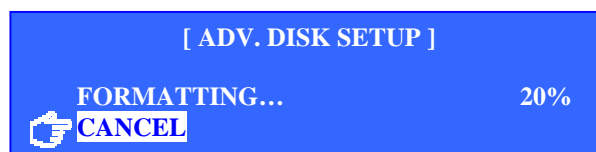
1. Press the **[Menu]** button to pop up the **[MAIN MENU]** on the screen. Select **[TRANSMITTER SETUP]** -> **[ADV. DISK SETUP]**, and press the **[Enter]** button to pop up the following sub-menu



2. Select the **[FORMAT DISK]** item, and press **[Enter]** button to confirm the selection. A message box will pop up as follow



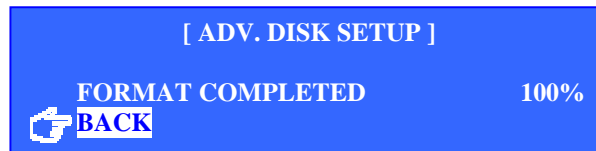
4. Use **left/right arrow** button to select **[YES]** and press **[Enter]** button, the system will start formatting. The following information will show on OSD.



## Hard Disk Installation and Formatting

**Note:** Having confirmed the hard disk formatting, all your data on the hard disk will be lost.

5. Upon completion of hard disk formatting, the following message box will pop up



## Hard Disk Scanning

It has similar function to the **SCAN DISK** provided by the Operating System of your personal computer. It is easy to understand why and when you will use it. Our **TeleEye III+ VX** provides this function so as to rescue the hard disk when errors found, and to enhance its performance and reliability. After scanning, the damaged files will be deleted so that the remaining normal videos can be seen.

**It will be used in the following cases:**

1. You cannot playback the recorded videos
2. You cannot search the desired video from the recording log. Or although you can find it, you cannot play it
3. You wonder if the hard disk has problem

**Procedures:**

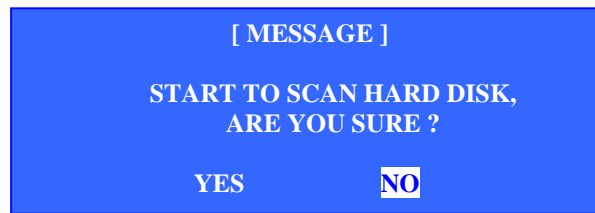
1. Press the **[Menu]** button to pop up the **[MAIN MENU]** on the screen. Select **[TRANSMITTER SETUP]** -> **[ADV. DISK SETUP]**, and then press the **[Enter]** button to pop up the following sub-menu



2. Select the **[SCAN DISK]** item, and press **[Enter]** button to confirm the selection. A message box will pop up as follow

## Hard Disk Installation and Formatting





3. Use **left/right arrow** button to select **[YES]** and press **[Enter]** button, the system will start scanning. The following information will be shown on OSD



4. Upon completion of hard disk scanning, the following message box will pop up



## Recommended Hard Disk List

Hard Disk Capacity	Product Line	Model No.
20GB	Maxtor FireBall 3 (5400 RPM)	2F020J0
	Maxtor DiamondMax Plus 8 (7200 RPM)	6E020L0
	Western Digital Protégé Value (5400 RPM)	WD200EB
40GB	Maxtor FireBall 3 (5400 RPM)	2F040J0
	Maxtor DiamondMax Plus 8 (7200 RPM)	6E040L0
	Western Digital Caviar High-Performance (7200 RPM)	WD400BB
	Western Digital Protégé Value (5400 RPM)	WD400EB
80GB	Maxtor DiamondMax Plus 9 (7200 RPM)	6Y080L0
	Maxtor DiamondMax 16 (5400 RPM)	4R080L0
	Western Digital Caviar Mainstream (5400 RPM)	WD800AB
160GB	Maxtor DiamondMax Plus 9 (7200 RPM)	6Y160P0
	Maxtor DiamondMax 16 (5400 RPM)	4A160J0

## Hard Disk Installation and Formatting

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SECTION 6

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## USING BUILT-IN WEB SERVER

### Enable the Built-In Web Server

#### PC recommendations:

- 128MB RAM
- Netscape 6.1 or Internet Explorer 5.5 or above
- Any OS platform with web browser and Java Support

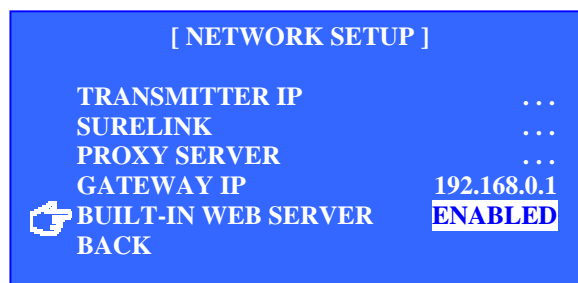
Before using the web service, you have to enable the Built-in Web Server feature. Follow the steps below to configure **TeleEye III+ VX** for using web feature.

#### Procedures:

1. Press the [Menu] button to pop up the [MAIN MENU] on the screen. Select [TRANSMITTER SETUP] and press [Enter] button to pop up the following sub-menu



2. Select the [NETWORK SETUP] item, press [Enter] button to confirm the selection

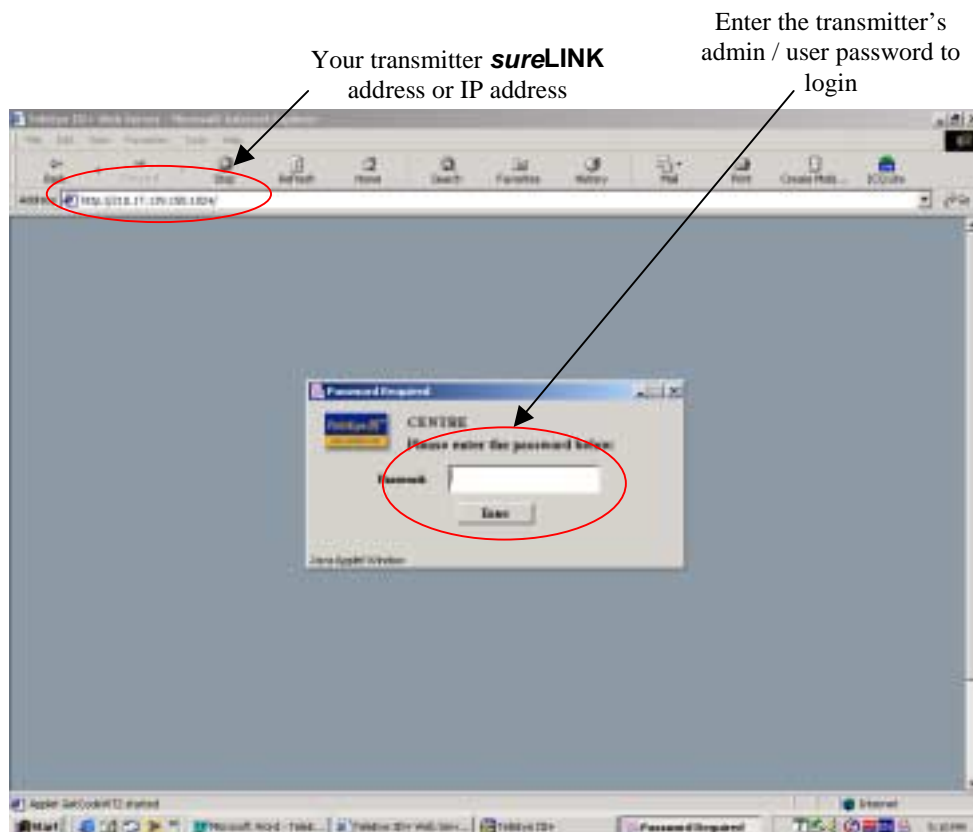


3. Use up/down arrow button to select the [BUILT-IN WEB SERVER] item, and use left/right arrow button to select [ENABLED]. Now the built-in web server is enabled

### Using Built-In Web Server

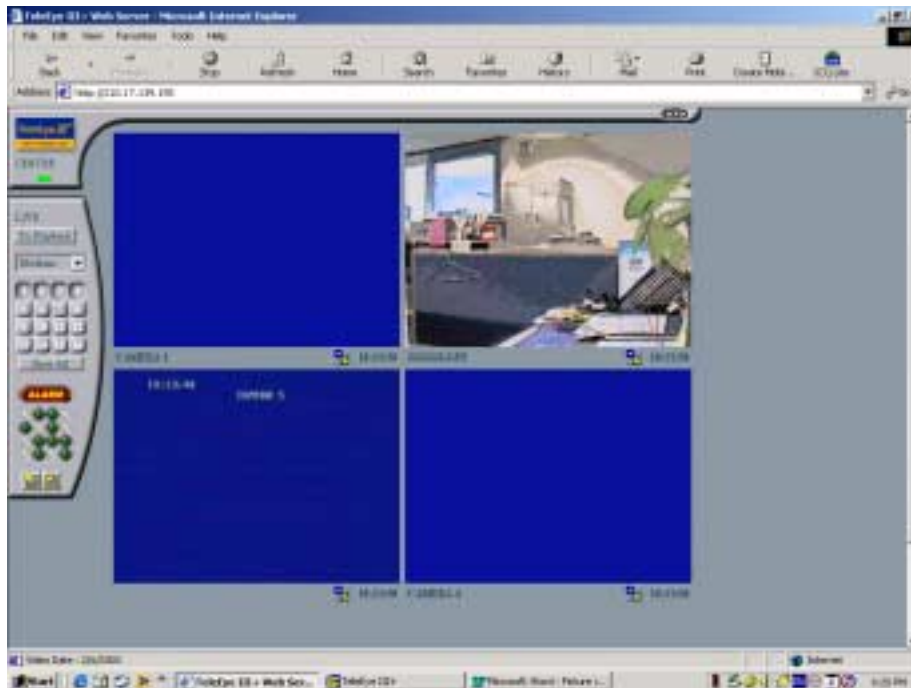
## Connecting to the Web Server

In your browser, type the **sureLINK** address of your transmitter, eg. <http://www.hkpublic.teleeye.teleeye.net> or simply IP address of the transmitter, you will see a web site like:



Enter your transmitter login password and press **Enter** button. A new page will be displayed.

## Using Built-In Web Server



You can choose the cameras by clicking the buttons on the left.

Note: If you have any problem on opening the page, please go to <http://java.sun.com/getjava/download.html> to update your Java VM.

## Using Built-In Web Server

---

**APPENDIX**  
**A**

## **sureLINK TECHNOLOGY**

**sureLINK** technology is available in **TeleEye III+ VX**, which enables you to connect to the transmitter with broadband dynamic IP connection. If you can only use broadband dial-up account to connect to the Internet through your computer, **sureLINK** provides a solution for sharing the Internet connection between your computer and the transmitter.

**sureLINK** is a group of additional functions, services and software provided for the transmitter so as to make it connect to the Internet in any connection methods. Such function can only be used if you have applied for this service. After you have done so, you also need to configure the transmitter to make **sureLINK** available. This section will help you to configure and use it.

By using of **sureLINK** technology, the powerful **TeleEye III+ VX** can work on broadband Internet economically, a cost effective and convenient remote live video monitoring anytime and anywhere.

- **sureLINK Address**

You can apply for a **sureLINK** address (domain name), such as *www.hkpublic.teleeye.teleeye.net*, for your transmitter. You can use this name to login or browse the built-in web server. One of the advantages is that you are not required to memorize the IP address (e.g. *210.177.50.156*) of the transmitter. Since the **sureLINK** address is fixed while the IP address may change periodically (in case when dynamic IP is used), you do not need to worry about the expiration of the IP address. The **sureLINK** address can also be used in transmitter web browsing to see live video on standard web browser (e.g. IE, Netscape), it will be discussed in Section 6.

- **Refreshing Rate**

When **sureLINK** address feature is enabled, the transmitter will periodically update its current IP address to our database to ensure that the **sureLINK** address is always forwarded to a valid IP. You can set this update period at the using OSD

- **DNS Services:**

Assigned when the transmitter can directly access the Internet without the help of **TeleEye** Proxy Server

## How to Apply for **sureLINK** Address

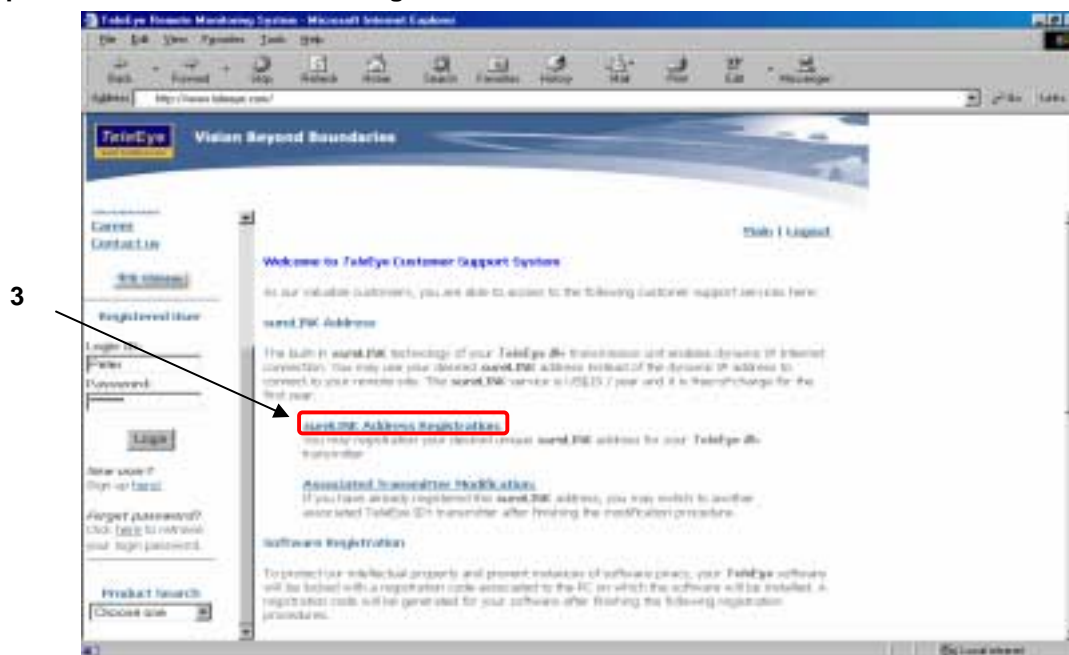
You can apply for **sureLINK** by visiting our web site at <http://www.TeleEye.com>



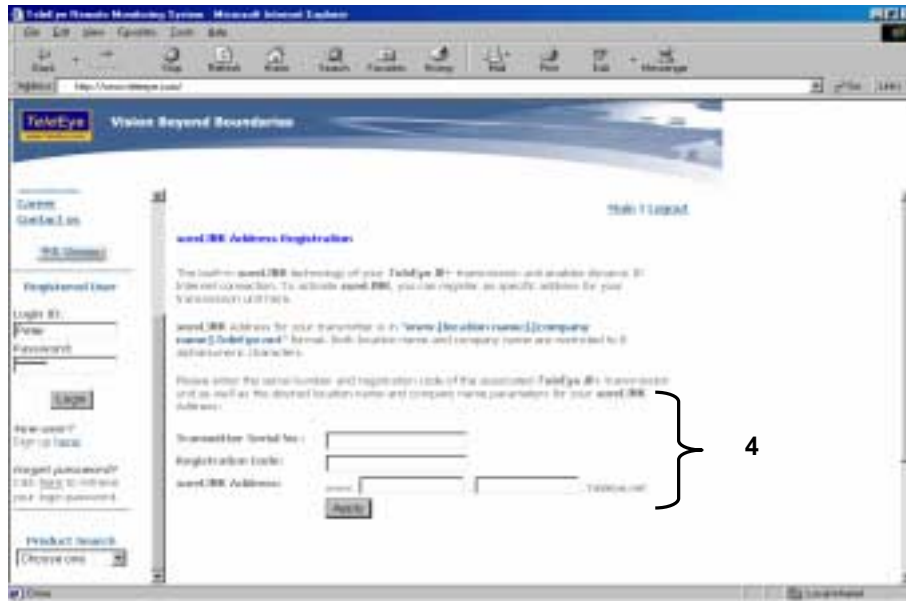
**Step 1:** Sign up to create your user account

**Step 2:** Login the page using your registered name and password.

**Step 3:** Click **sureLINK Address Registration** button



**sureLINK Technology**



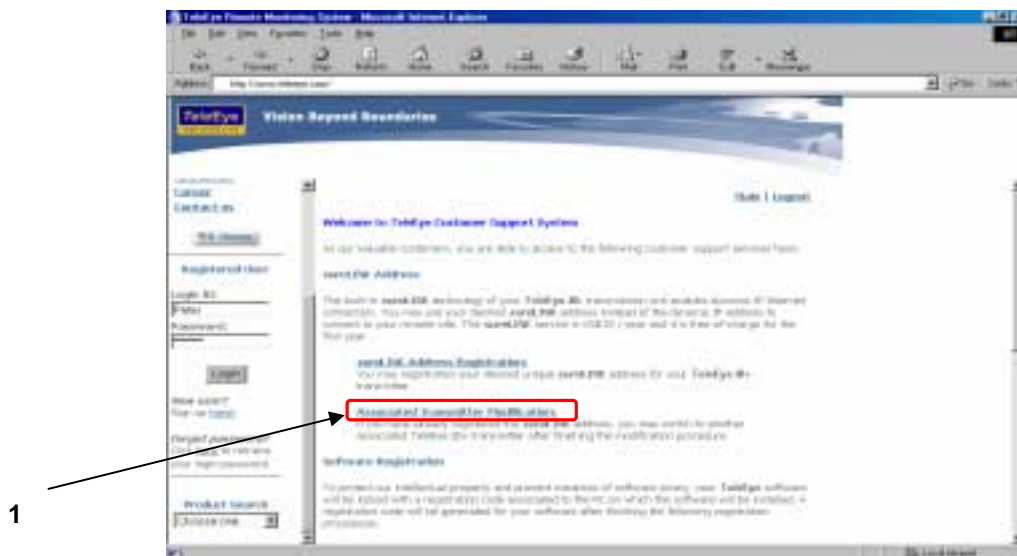
**Step 4:** Enter a **sureLINK** address (Domain Name), your **Transmitter Serial No.** and **Registration Code** in the fields provided respectively. Then click the **Apply** button. The process is then completed.

After we received your domain name registration for your transmitter, your application will be processed. Normally, it requires about 2 to 3 working days to activate **sureLINK** for your transmitter. You will receive a notification mail when your **sureLINK** service is ready.

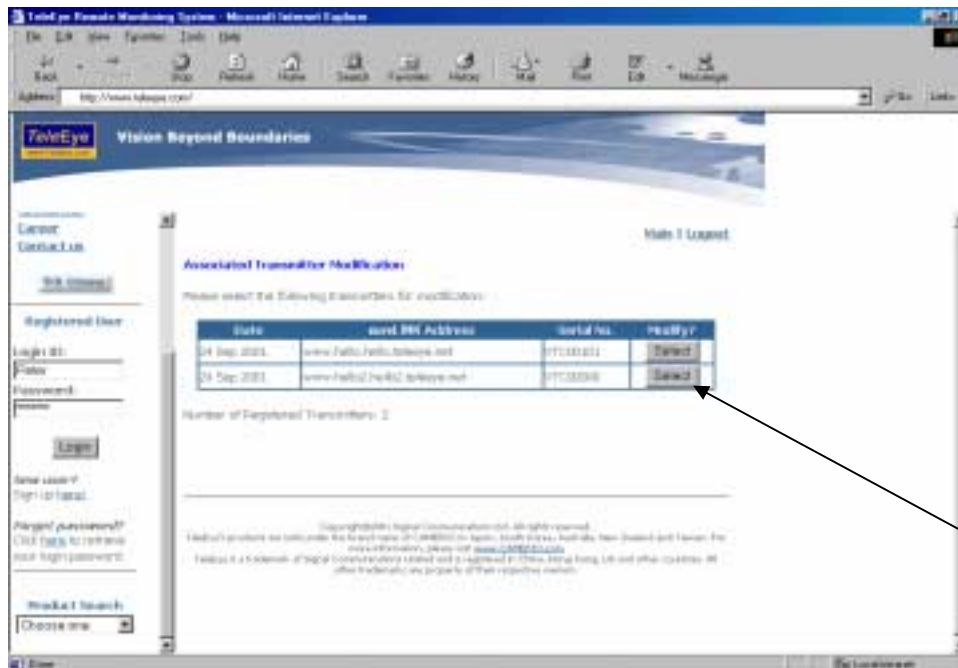
## Transmitter Modification

Since the **sureLINK** (Domain name) address corresponds to a single transmitter, if you change from one transmitter to another one, you have to inform us to update our database record. To do this, you can visit our **TeleEye** Product Support again and follow the steps below:

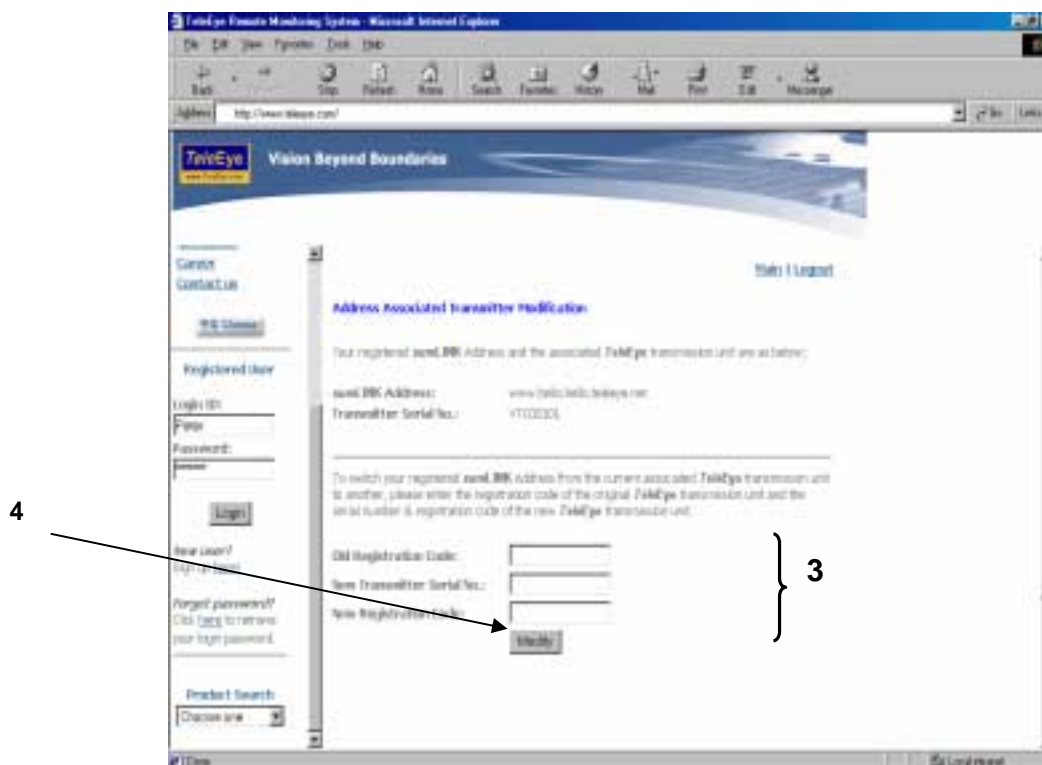
**Step 1: Transmitter Modification > Select a **sureLINK** address (Domain Name) you want to modify**



**sureLINK Technology**



**Step 2:** Enter the **Old Registration Code**, **New Transmitter Serial Number** and **New Registration Code** at each field provided. Click **Modify** button to submit the form.



If the above procedure is completed successfully, the **sureLINK** will be effective immediately.

**sureLINK Technology**

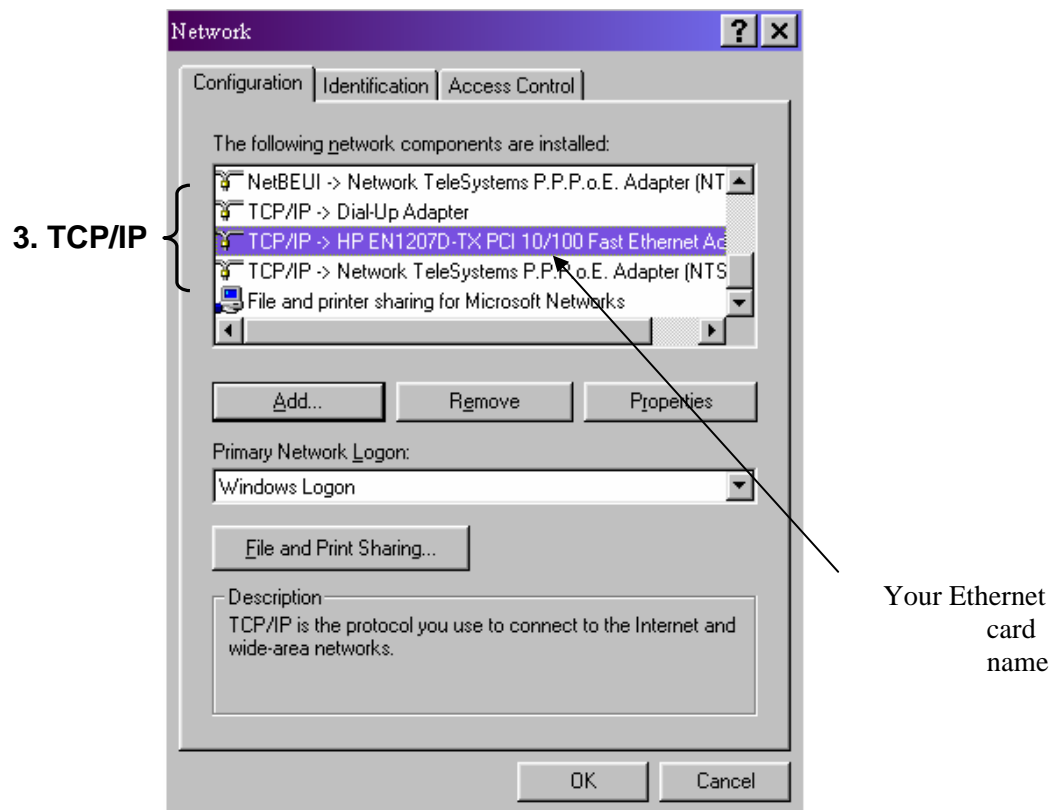


**APPENDIX B****IP ADDRESS SETUP FOR PC****IP Address Setup for Windows 98/ME**

The follow procedures will set your Ethernet Card IP address manually for your local LAN purpose. Note that these procedures will NOT affect your PC to get on the Internet. If you discover that you cannot be able to access on the Internet after applying the settings, you have to undo the settings or re-install the software provided by your ISP and retry the steps again.

**Step 1:** In Windows 98/ME desktop, select **Start > Settings > Control Panel**

**Step 2:** Double click **Network > Configuration**, you will find that there are at least 2 fields (usually 3 fields) started with "TCP/IP ->".

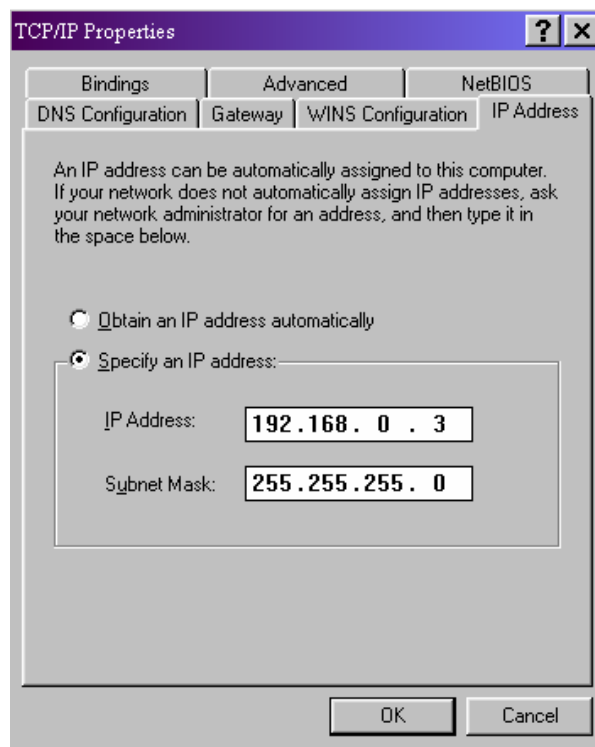


Two of them are very important for setup. One of them is used for your local Intranet (the field may contain the name of your Ethernet card), the other one is used for your broadband Internet connection. An example is shown in the following figure.

TCP/IP-> HP EN1207D-TX PCI 10/100 Fast Ethernet Adapter	Used for Intranet (local network)
TCP/IP-> Network TeleSystems P.P.P.o.E Adapter	Broadband Internet Access (Point-to-Point Protocol over Ethernet)

Note that the name of these two TCP/IP adapters may be different on your computer. You have to identify the purpose of each corresponding adapter.

**Step 3:** Choose **TCP/IP->[Your Ethernet card name]** > Click **Properties > IP address**, enter an IP address "192.168.0.3" and subnet mask "255.255.255.0"

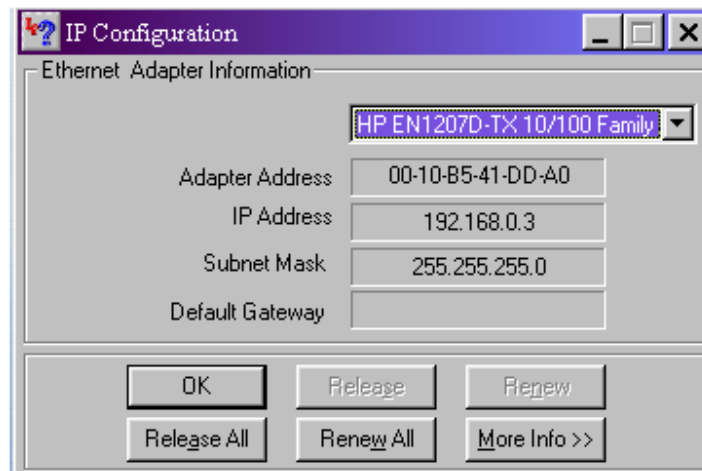
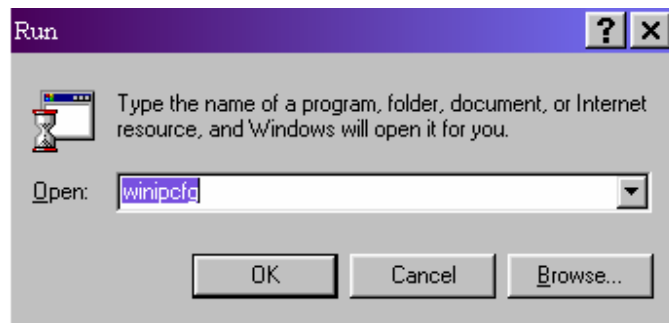


**Step 4:** Click **OK** and **OK** and reboot the computer.

**Step 5:** After booting, ensure that the computer can still be connected to the Internet.

**Step 6:** You have to confirm that IP address has been set on your computer. On your windows, click start > run, type "winipcfg" at Open field and press OK button, then you will see a IP Configuration program shown as figure.

## IP Address Setup For PC



**Step 7:** Select your Ethernet card name on the field, you will see an **IP address** on the field. Ensure that that is the same as you have set before (i.e. 192.168.0.3). If it is not so, please repeat step 12. Click **OK** to close the program.

## IP Address Setup For PC

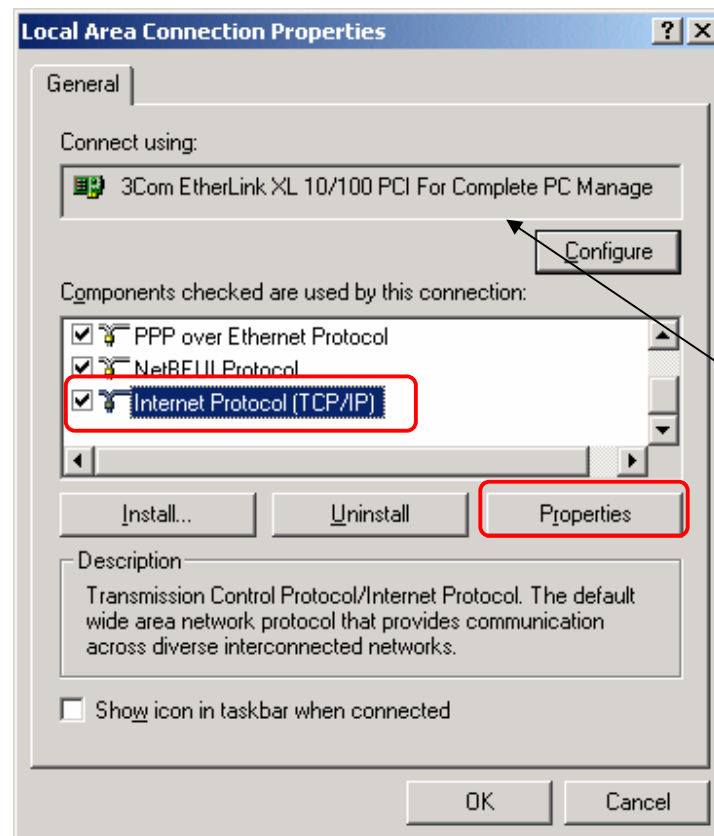
## IP Address Setup for Windows NT/2000

The follow procedures will set your Ethernet Card IP address manually for your local LAN purpose. Note that these procedures will NOT affect your PC's connection to the Internet. If you discover that you cannot be able to access to the Internet after applying the settings, you have to undo the settings or re-install the software provided by your ISP and retry the steps again.

**Step 1:** In Windows NT/2000 desktop, select **Start > Settings > Control Panel**

**Step 2:** Double click **Network and Dial-up Connections** > right click **Local Area Connections** and choose **Properties**.

**Step 3:** Choose **Internet Protocol (TCP/IP)** and click **Properties**

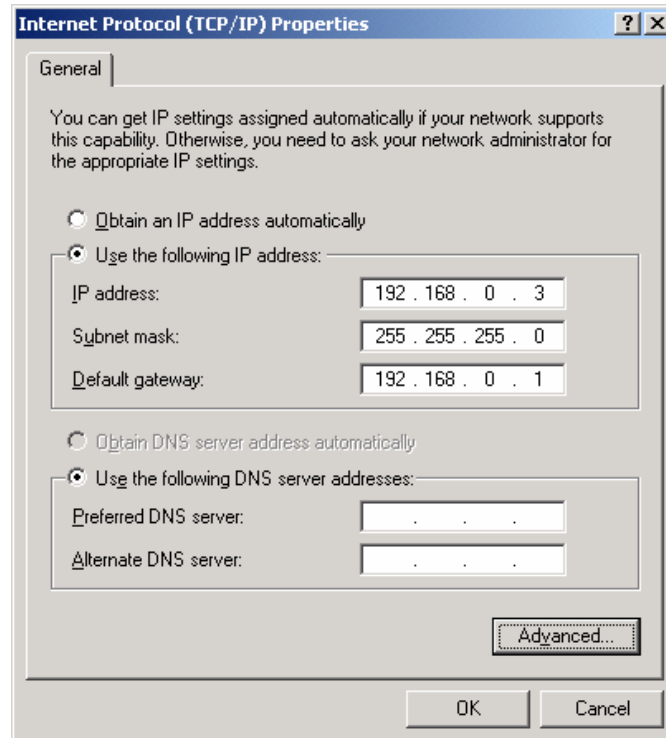


Your Ethernet  
card  
name

## IP Address Setup For PC

**Step 4:** Enter an **IP address**, **subnet mask** and **Default gateway**.

**Step 5:** Enter the **Preferred** and **Alternate DNS server**, if necessary.



**Step 6:** Click **OK** to activate the new IP.

**Step 7:** You have to confirm that IP address has been correctly set on your computer. On your windows, click start > run, type "*cmd*" at Open field and press OK button, then type "*ipconfig*" on the DOS prompt, you will see an IP set on your computer.

## Router Configuration

### Port Mapping in your Router

For **PLANET** Internet SOHO Router **XRT-101 / XRT-711**, please refer to its menu

6.1 Advanced Internet Features ->

Virtual Servers (Define servers on your LAN, so Internet users can access them)->

E.3 User-defined Virtual Servers

#### Suggested Data for router:

Name	TeleEye
IP Address	192.168.0.2 (Your transmitter IP address)
Protocol	TCP
Internal Port No.	1024
External Port No.	1024

### IP Address Setup For PC

# APPENDIX C

## SPECIFICATIONS

MODEL	VX-4001	VX-4002	VX-8002	VX-8004	VX-16004	VX-16008
VIDEO INPUT						
STANDARD	(P): PAL/CCIR, 625 lines, 50 fields per second (N): NTSC/EIA, 525 lines, 60 fields per second composite video, 1 V <sub>p-p</sub> , BNC					
NO. OF CHANNELS	4	8		16		
RESOLUTION	Quality mode: 640X480, 320X240, 160X120 pixels Speed mode: 512x384, 256x192, 128x96 pixels					
VIDEO OUTPUT						
STANDARD	(P): PAL/CCIR, 625 lines, 50 fields per second (N): NTSC/EIA, 525 lines, 60 fields per second composite video, 1 V <sub>p-p</sub> , BNC					
NO. OF CHANNELS	2					
STANDALONE OPERATION						
TYPE	System configuration, operation, audit trail					
COMMUNICATION						
NETWORK	RJ-45, 10/100Base-T Ethernet (auto-sensing)					
CONCURRENT USERS	6	10		18		
WEB SERVER	built-in web server					
sureLINK	support Internet connection assigned with dynamic IP address					
MODEM PORT	RS-232C: DB-9 male, asynchronous, 8 data bits, 1 stop bit, no parity, 9.6k-115.2kbps, hardware flow control					
AUX PORT	RS-232C or RS-422/485 RS-232C: DB-9 female, asynchronous, 8 data bits, 1 stop bit, no parity, 2.4k-19.2kbps, hardware flow control RS-422/485: 2-way terminal, asynchronous, 5-8 data bits, 1-2 stop bits, no/odd/even parity, 2.4k-19.2kbps					
RECORDING						
MODE	manual, programmable, event-driven					
HD TYPE	IDE interface, removable					
HD SIZE	40GB, 80GB, 160GB selectable					
MAX. RECORDING RATE <sup>#</sup>	12.5/15fps	25/30fps	25/30fps	50/60fps	50/60fps	100/120fps
EVENT HANDLING						
EVENT TYPE	external alarm, video motion detection, video loss, recording full, system failure					
ACTION TYPE	buzzer, dial back, local recording, relay control, email notification					
EXTERNAL INPUTS	4x, or 3x + arm/disarm, NC/NO		8x, or 7x + arm/disarm, NC/NO		16x, or 15x + arm/disarm, NC/NO	
RELAY SWITCH						
NO. OF CHANNELS	4					
MAX. RATING	24V AC, 1000mA					

### Specifications

POWER			
VOLTAGE	12V DC		
MAX. RATING	40W	44W	51W
OPERATING ENVIRONMENT			
AMBIENT TEMPERATURE	5°C – 50°C		
RELATIVE HUMIDITY	<85% (no condensation)		
MECHANICAL DESIGN			
DIMENSION	360x345x95 (mmxmmxmm)		
WEIGHT	5.1 kg	5.5 kg	6.3 kg

## Specifications